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Features in This Issue

The Mirrors of the Hospital

Equipment of a European Institute for Physiotherapy

Food Value and Dietetic Properties of Edible Gelatin

Composition Flooring

Tea from the Leaf to the Cup

Fire Protection

Motion Pictures in the Hospital

JULY, 1923

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Table of Contents

Mirrors of the Hospital 11
Make Way for the Man 16
Do Hospitals Lack Heart?—Banks 17
American Hospital Association Meeting 17
Equipment of a European Institute for Physiotherapy—Ahlswede 19
Prescription of Alcoholic Beverages 21
What a Town of Only 338 Population Did 21
West Side Hospital 21
History of the New York Hospital 23
Department of Nutrition—Oliver 26
New Books 26
Radio in the Hahnemann Hospital—Lansing 27
Fire Protection 31
Hospital Records—Neu 33
Hard Luck 35
Health the Most Important Asset—Swallow 35
The Value of Publicity in Raising Hospital Funds—Bradley 37
Motion Pictures in the Hospital 39

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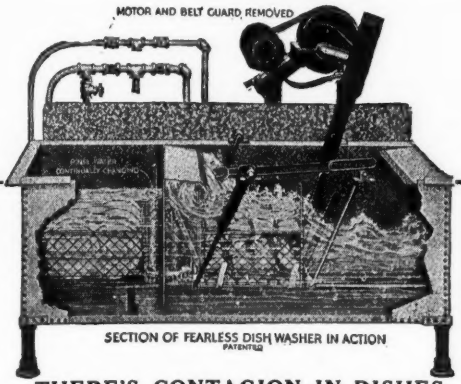

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TABLE OF CONTENTS—Continued

Dry Cleaning 40
Food Value and Dietetic Properties of Edible Gelatin—Downey. 41
New Beverage 47
Discussion on Hospital Publicity Started in New York..... 48
Dairy Products Values Dropped Last Year..... 48
Hospital Superintendent 48
Composition Flooring—O'Neill 49
Advantages of Prepared Paint—Farrar..... 51
Tea from the Leaf to the Cup—Drimmie..... 53
Southern Hospital Notes..... 55
Detection of Spoiled Canned Goods..... 56
Some Little Known Uses for Lemons..... 56
Market Review—Drach 57
Hospital Library With Small Cost—Green..... 59
$10,000,000 Gift by John D. Rockefeller..... 60
Laundry Practice—Wakefield 61
Stain Removers 62

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TABLE OF CONTENTS—Continued

Vitamins 62
Eastern Hospital Notes 63
Feverish Fruits 64
Purchasing Information 66
Philadelphia Notes 72
Building by General Contracts 74
Fifth Avenue Hospital, New York City 76
Twenty-eigth Years Ago and Now 78
Wilmington Hospital Notes 78
Liquid Glue 80
Baking Powder 82
Milking by Machinery 83
Opportunities Column 84
Grapefruit Hearts Now Being Canned 84
Hospital Notes 88
A Seedless Apple 88
Bananas from Mexico 88
Bureau of Information 93

Classified Index of Advertisers

Anesthesia Apparatus

Toledo Tech. App. Co. 69

Asbestos

Acme Asbestos Cov. & S. Co. 95

Baby Garments

Earnshaw Sales Co. 87

Beds and Metal Furniture

Smith & Davis Mfg. Co. 73

Books

Amer. Med. Ass'n. 10
S. DeWitt Clough & Son 95

Developing Tanks

Victor X-Ray Corp. 65

Dishwashing Machines

Fearless Dishwasher Co. 3

Electro Therapeutic Apparatus and Supplies

Burdick Cabinet Co. ..... Fourth Cover
Fischer, H. G., & Co. 7
Meyer Co., Wm. ..... Third Cover
Sanitarium Equipment Co. 89

Foods

Bischoff's 89
Holstein-Friesian Ass'n of Amer 9
Horlick's Malted Milk Co. 87
Ideal Cocoa & Chocolate Co. 79
Quaker Oats 71, 75, 85

Hospital Records

Physicians' Record Co. 5

Hospital and Surgical Supplies

Betz Co., Frank S. 2
Davis & Geck, Surgical Sutures 1
Taylor Instrument Cos. 2

Kitchen Supplies

Reynolds Electric Co. 4

Laundry Machinery

American Ironing Machine Co. 4
Mateer & Co., F. W. 85

Medical Insurance

Medical Protective Co., The ..... Second Cover

Petroleum Jelly

Standard Oil Co. 8

Rubber Gloves

Massillon Rubber Co. 67

Textiles

Pacific Mills 83
Puritan Mills 79

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Electro-Coagulation—
Medical Diathermy—

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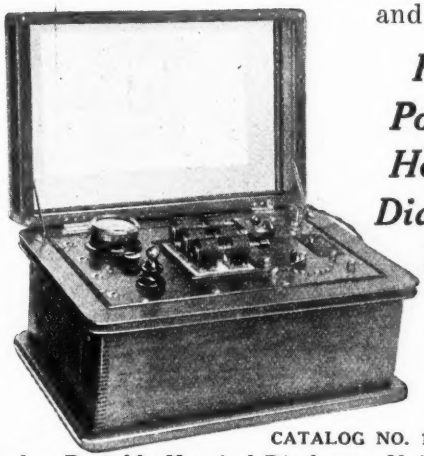

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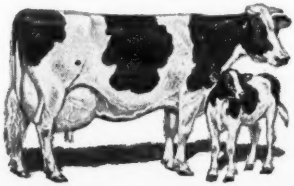

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Volume I | JULY, 1923 | Number 10

The Mirrors of the Hospital

This paper was prepared by a well-known writer, and was recently read at the nurses graduating exercises of a large Chicago hospital. The author is a regular contributor to THE HOSPITAL BUYER, *his "Letters of an Intern" are attracting wide attention and are universally enjoyed for their breezy style and true delineation of hospital life.*

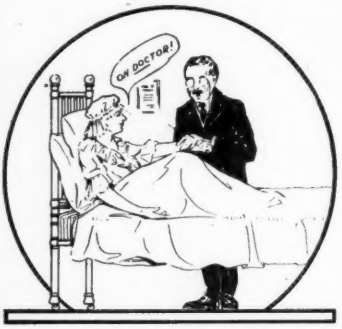
ALONG corridor, dim with the shadows of twilight; doors opening at regular intervals along its quiet walls; ever and anon a quiet figure moving on rubber shod feet sedately about some definite task; the flash of a light and in a moment she is alert to answer its call; then, the needs of the patient having received attention, she returns to her post of duty in the corridor; here she sits, inscribing the records that make the history of the institution,—the records of the service rendered to the sick by the staff, the nurses, the superintendent, and the others who have selected as their life vocation ministry to the sick. That is in brief a flash in the mirror of the hospital, a "slow fadeout" in the language of the movie scenario. But the picture is familiar. Let us move to an account perhaps here and there somewhat satirical if not facetious, of the thoughts and impulses behind the scene.

Almost every one has read, or at least heard, of a series of volumes recently published, "The Mirrors of Downing Street" and the "Mirrors of Washington." These books were satirical sketches of the well known men of the last few years who have goverened Great Britain and the United States, if not wisely, at least too well. In the mirrors of the hospital are not seen however these sharply defined figures but instead the spirits of types of persons, the nurses, the doctors, the orderlies, the superintendents, cast into a common mold for the purpose of reproduction.

The Doctor

The modern physician is, or ought to be, the end product of a perfect civilization. He must combine the finesse of a diplomat, the eloquence of a lawyer, the impartiality of a judge, the decision of a general, the frankness of a wit-

ness and the astuteness of a man on trial for his life, with the precision of a mathematician, the imagination of an artist, the altruism of a philanthropist, and the tenacity of a pawnbroker in money matters. Picture him on his morn-



ing round in the hospital. His Rolls-Rough brings him smoothly to the front entrance; his chauffeur leaps to open the door for him; as he enters the portals of the house of health, the attendants vie with one another in divesting him of his seal collared English broadcloth overcoat, while the young lady at the information desk confers on him a smile which causes the adoring janitor to turn dizzy and well-nigh faint. The medico enters now a room of a patient convalescing from an abdominal operation. Two weeks ago while in the midst of sundry pains resulting from certain physical causes incident to the recent exposure of her viscera she had remarked to all the world that she was through,—absolutely, never again! Today she is sitting up attired in something pink and shiny, covered with Valenciennes lace; her curling locks are daintily bestowed beneath a bit of crinkling silk, likewise plentifully besprinkled with lace, and she barely has time to put away the powder puff with which she administered a last desperate dab to her shining proboscis on hearing the step of the physician in the hall. As he says "Good morning," she merely murmurs "Oh, doctor." He quietly says "everything all right, nurse?" and is on his way to the next room, as the patient gasps "Oh, nurse, isn't he the dearest man?" (If the mirror were cracked it would crack a smile.) Thus he proceeds from room to room, finding everyone everywhere alert for his entrance, patients bubbling over with questions which he invariably answers,—sometimes correctly,—and nurses every ready to hand him the history chart, the thermometer, or some other of those innumerable devices planned for easy introduction into unusual orifices.

But it is in the operating room that we see him at his best. He now divests himself of his sartorial splendor and is attired in garments of gleaming white indicating that the patient must come clean after the operation is over. The surgeon's ever vigilant eye now assumes a keenness double that conferred on ordinary occasions. He must assure himself of the absolute purity of all conected with this auspicious ceremony and he leads the way by laving his own hands and arms repeatedly in various solutions calculated to bring the mortality of the bacterial population up to one hundred per cent. For operative procedure the doctor accumulates a retinue like that of the king of Abyssinia. It includes an anesthetist, the first assistant, the assistant to the assistant, the intern, the surgical nurse, the assistant surgical nurse, the sponge counter, the perspiration wiper, and the awe-stricken beholders. If he is a good surgeon all work together like the parts of a noiseless sleeve valve motor. And if they don't work together the result is like the knocking of a twelve cylinder engine with every third cylinder missing.

The Superintendent

Thus having reflected this noble figure in various attitudes the mirror might well turn its face toward the wall, were it not that there is another still more lordly whom it may well be proud to reflect—the superintendent. If the doctor must have all the virtues with which it is possible for mankind to be endowed the hospital superintendent must have all that he has—and then some. The superintendent must be the peacemaker and the pacemaker. The superintendent must know enough science to see that the scientists work scientifically, enough economics to see that the hospital runs economically, enough civics to see that the employees are civil, and enough business to keep everybody busy. When the patients complain of the doctors she must console them; when that the doctors complain of the nurses she must uphold them, when the nurses complain of the orderlies and scrub maids the "super" must scold them, and when others complain to the board of directors, she says they did what she told them. It may well be gathered then that the chief duties of the superintendent are to listen to complaints and to explain them away. But it amounts to far more than that—she is the hospital switchboard through which all lines are routed and rerouted so that everything works into a single cable. Through her pass all incoming and outgoing messages. No one has ever estimated the life of the average hospital superintendent but it is probably about half what it would be were the superintendent engaged in any other occupation.

There was once a hospital superintendent whom everybody loved and nobody knocked; she lasted three weeks; there was another superintendent whom everybody knocked and nobody loved; she didn't last at all; the ones that last are those that keep the knocks and the loves at a fairly even balance and who have a lot of luck. There is only one position in the world harder than being a hospital superintendent and that is being the impresario of an opera company. Only the artists in such a conglomeration have more temperament than the average group of physicians, nurses and hospital employees. The mirror that reflects the hospital superintendent has to be one of those three-way combinations used by the average ready-made clothing house to convince the customer that the suit fits every place that it feels wrong. It reveals the hospital superintendent with three faces, one for the physicians, one for the public, and one for the resident nurses and staff. But above the three faces rests the same lively, earnest, sincere brain, working for the good of all.

The Supervising Nurse

The supervising nurse is the right hand of the superintendent; what responsibilities the "super" ducks are laid upon her; what blame the "super" can dodge she gets; her ambition strangely enough is to be some day a superintendent; hers not to reason why, hers but to do and try. She travels

hither and thither about her little kingdom, inspecting the natives at their daily toil and seeing to it that they fulfill their allotted tasks. She is cautiously referred to in her absence by the nurses and the interns as "the old cat" but they call her "my dear" when they ask for a little time off for Christmas shopping. It is the desire of every nurse to be a supervising or floor nurse and the latter thinks only of the time when she too was young and free from care.

Let us pause but a moment for some of the specialists who wander, ever and anon, along the hospital corridor.

The Radiologist

The radiologist is a shining light in the profession of medicine. He is always pursuing shadows, and he works best in the dark. His favorite scenery includes apical abscesses, stones and notches. Sometimes he can see things about the bones and tissues which the eyes of the average physician are unable to distinguish, and sometimes when the average physician looks for these things at operation or postmortem, they are there. The radiologist must be an electrician, a photographer and an all around mechanic. There was a time when he devoted himself wholly to snapshots of single sections; in other words, he did a retail business. Nowadays, he is concerned with dental pictures which come in lots of ten and with serial pictures of the gastro-intestinal tract which come in quantities of fifteen to 100. This, of course, does not include fluoroscopy, which has placed him definitely in the class of moving picture magnates.

The Obstetrician

The obstetrician is a medically educated night watchman. Regardless of the fact that statistics show almost as many babies born in the day as in the night, the average woman seems to hold out for the darkness. There was once a day when this made a great deal of difference to the obstetrician, but

not so now. Be it understood at once that although some several billions of human progeny must have entered this world in the normal order at due time and quite unassisted, the modern obstetrician is little inclined to permit Mother Nature to "roll her own." He is frequently a mathematician with a high degree in calculus, and he uses his mathematics in order that he do his obstetrics by appointment. There was a time when the obstetrician had to hasten forth at all hours, into all sorts of weird domiciles which he immediately turned into efficient delivery rooms. Nowadays he languidly murmurs to his intern or to the night nurse "Let me know when the head presents" and then, returning to the table, he remarks "I'll bid four spades."

The worst thing about the gynecologist is his pronunciation. He is pronounced variously "gyne," "ginne," "jyni," jinni," any of which is right, depending on how he happens to feel that day. To be a good gynecologist one must be either inordinately handsome or unheavenly homely. He must be sufficiently different to attract the ladies and sufficiently indifferent to keep them attracted.

The Neurologist and Psychiatrist

Let us turn now from those high priests of the body physical to the neurologists and psychiatrists, who delve into the mind and the human understanding. Oh, for the day when there were but two types—the wise man and the nut. Today there are as many forms of insanity as there are types of streptococci. They have taken the human mind and split it into layers with the conscious at the top, then the subconscious and finally, the unconscious. However, even here there is no rest, and we come at last to the spiritual world of Sir Oliver Lodge and Sir Arthur Conan Doyle. James Harvey Robinson wrote a book caled "The Mind in the Making," but they are not making it; they are disintegrating it. It was a beautiful symbolism that a modern leader should have been named Freud, a name that requires only the exchange of a single letter to make it seem more nearly right. Neurology and psychiatry is a system of diagnosis with only one prescription, and that is "rest." After all, their therapy was best explained by the great Mencken: "Psychiatry is the theory that the patient will probably get well anyway and is certainly a darn fool."

The Dermatologist

To the dermatologist come the patients with a handicap that starts from scratch. His is a specialty which is a system of nomenclature. Time was when anything that was red and itchy and weeping was eczema. Now eczema is split up into 400 different complaints, every one of which has fifty names. The dermatologist is long on names but longer on treatment. A good dermatologic prescription contains enough ingredients to qualify an ordinary pharmacist for a professorship. The average physician hits the etiology and is satisfied with that, but the dermatologist not only hits the etiology but the color of the patient's skin. The ability of the prescription to stay on the skin and the ability of the skin to stay off the prescription.

Christian Science

This misfit is a mathematician who has convinced himself that two and two make anything from three to five and one-half. To call him Christian is a misnomer, for he reverses the Golden Rule, constantly doing others whom he cannot be done by. To call him scientific is more nearly correct, for he has reduced the art of living without work to an absolute certainty. His specialty is the living exemplification of Barnum's most notable aphorism, except that in these speedy times the number born per minute has been unduly hastened.

The Dietitian

The work of the dietitian is perhaps the most difficult and unpleasant task of the hospital personnel. Her duty is to provide food for those who are not hungry and who would rather not eat. Dietetics has passed from a simple formula, such as, oatmeal for breakfast, lettuce for lunch and soup for dinner to so many calories and so many vitamins per portion

(Continued on page 86)

Make Way For the Man

By Charles Eugene Banks

In "Backbone"

Let us have peace. No craven's peace,
Nor sluggard's to gape and dream;
But the strenuous peace of the land's increase,
And the powerful beat of steam.
Let the cannon of commerce roar over the fields,
And the bugles of brotherhood play;—
For the arm of the man, and the brain of the man,
And the grit of the man, make way.

Let us have peace. No timid peace,
That doubtful clings to its place,
But the free brave peace of the old-time Greece,
And the faith of a patriot race.
Let the vision of Virtue enrapture the gaze,
And the bolts of Integrity stay;—
For the arm of the man, and the brain of the man,
And the nerve of the man make way.

Let us have peace. No anchored peace,
That holds its sails in the slips,
But the peace that sweeps all the strange blue deeps
With the keels of its own great ships.
With Honor commanding, and Truth at the helm,
And Beauty to welcome the spray;—
For the nerve and muscle and brawn and brain,
For the soul of the Man make way.

Editorial

DO HOSPITALS LACK HEART

An article in the Western Hotel Reporter headed, "Hotels Lack Heart, Say Travelers," suggests the question as to whether the sick travelers entertained by hospitals do not sometimes also say "Hospitals lack heart."

Just as the traveler in a modern hotel becomes simply "Room No. 1961," and ceases to be a person in the eyes of the hotel personnel, so the sick person coming to the hospital is apt to become simply "a case" treated from the medical standpoint with every care and precaution that modern science has evolved and nursed according to the best ethics known to the nursing profession, but still not a person craving a little personal touch of sympathy and personal interest, but only "a case" undergoing scientific renovation.

In the hustle and bustle of the hospital with its usually overworked staff, it is, of course, hard to find time to inject the personal interest the average patient craves, but there is no doubt that the more attention is given to the development of the catering to this phase of human nature which, from a medical standpoint, may be considered merely a whim, the more the going to hospitals when sick will be popularized.

To a certain extent, it can be done and it is very much worth trying both from the patients' standpoint and the standpoint of the reputation of the hospital.

AMERICAN HOSPITAL ASSOCIATION MEETING

We would like to see every hospital executive at the coming meeting in October at Milwaukee, Wis. Failure to attend means missing valuable information on every subject pertinent to hospital administration.

The educational and commercial exhibits will be very complete, and seeing a piece of apparatus is different from just reading about it.

The expenses for the trip are the best investment a board of trustees can make for the good of their institution.

The annual meeting of the A. H. A. is the post-graduate course for hospital executives, and nothing but physical inability should prevent their being present.

LET'S ALL GO.

INQUIRIES ARE WELCOME

THE HOSPITAL BUYER has had many inquiries from hospitals about where they can buy various articles. We welcome such inquiries and want our readers to write us about anything they want information upon. It is part of our service to our readers to furnish them upon request with any informatoin in our power.

Don't hestiate to write THE HOSPITAL BUYER any time, on any subject. Such inquiries are always welcome and will be given the most careful consideration.

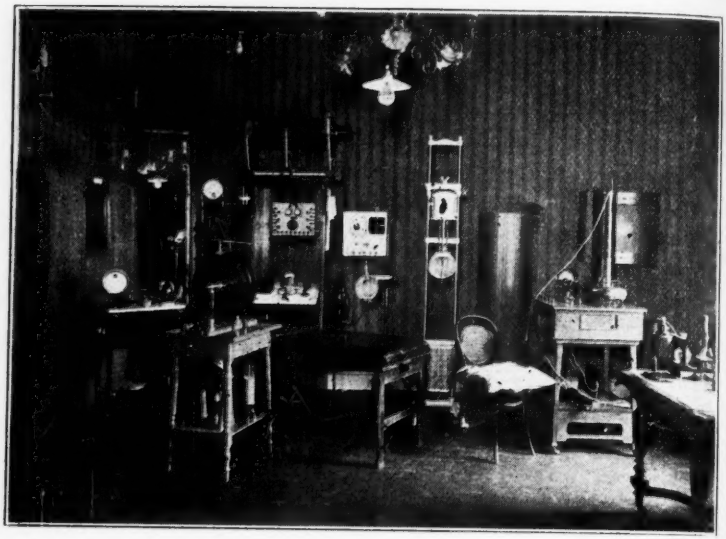


Fig. 1. High Frequency Appliances for the treatment of a variety of diseases

Fig. 2. Enclosure for treatment of obesity cases with Bergonier Outfit

The Equipment of a European Institute for Physiotherapy

By EDWARD AHLSWEDE, M. D.

IN THE modern German institutes for physiotherapy, which, for the most part, are private undertakings, grown out of general practice, the importance of large rooms for the treatment of several patients at the same time is particularly stressed. This facilitates supervision considerably and affords the use simultaneously of the most varied methods, as well as a great number of different combinations, according to the cases to be treated. The result is a great saving of time, and economy in personnel, space and fuel; the cleaning and disinfecting of the rooms is also greatly facilitated and the undertaking becomes a better financial success.

The appliances are so distributed in the room that the methods of treatment often used in succession do not necessitate transferring the patient from one room to another. Couches or beds for the patients to rest upon are present in sufficient number. Fig. 1 shows some high-frequency appliances for the treatment of a variety of diseases. The application of electric radiant heat, which has recently become more and more popular, and which is indispensable in the treatment of many diseases of the stomach, kidneys and liver, may be made by the easily transportable diathermic appliance seen in the illustration to the left. Treatment of the entire body with D'Arsonval high-frequency current may be applied with the instrument shown next in the picture; this apparatus is simply connected with a powerful induction machine, such as used in all x-ray outfits. Powerful sparks may be obtained at the same time from this high-frequency appliance, for the treatment of psoriasis, dry eczemas, inflammation of the superficial main nerves, etc. This method of treatment is not as firmly established in spite of its unquestionable value. The combined treatment of psoriasis with high-frequency sparks and long-waved rays (red light) has given excellent results in Doctor Ahlswede's institute. Such long-waved rays may, of course, be obtained with any sufficiently powerful electric bulb of yellow or red glass, but the often very intense heat given off by these hinders the curative effect. This difficulty has been overcome only in recent years by the construction of lamps, which radiate intense long-waved rays without developing the slightest heat. The well-known "Geissler" tubes are used for this purpose. Such a tube, preferably bent in a spiral form, is so strongly evacuated that it only emits certain rays of highest possible wavelength. The resulting "Neon" lamp (red light lamp) is connected to a high-frequency inductor. Profusely discharging eczema, refractory to all other treatments, disappears in a short time under this treatment. The appliance is shown in the center of Fig. 1, next to the induction machine and the switchboard. The arc lamp, seen also in the center of the illustration, serves either alone or combined with this red light for the treatment of numerous conditions of weakness, anemia, lupus, etc. It uses the newer principle of carbons impregnated with metallic salts, in order to obtain long or short-waved rays through the glowing of the carbon and the simultaneous combustion of the metals. By employing various

grades of carbon, impregnated with different metallic salts, innumerable combinations of light may be obtained; and it is the application of such different combinations of the various physiotherapeutic devices, individual for each patient, which has yielded the best results in the German institutes of this character. The high-frequency appliance with its vertical Tesla transformer, is likewise used for arsonvalization as well as for the production of strong high-frequency sparks of very intense activity. With this outfit, the spark conductor is placed on the table so that it may be easily adjusted whenever required.

Since Hamburg, like most large industrial cities, supplies direct current to operate the immense amount of electric motors, etc., a heavy transformer is necessary to change the current into alternate. The transformer is placed in the basement in order to avoid noise, and is operated by a simple switch, shown in Fig. 1, on the wall, to the right, next to the arc lamp. It is absolutely necessary that all appliances be easily movable from one place to another. Each one must be provided with good rollers and with an extension cable of sufficient length. Only in this manner can the various combinations be arranged noiselessly and without loss of time during the treatment of several patients in the same room. It is, of course, essential to protect every patient from the sight of other persons. This is done by means of partitions. which when not in use can be rolled up and set aside. Movable partitions provided with a glass window are also very suitable for inconspicuous observation of the patient. To the left on the illustration is shown such a partition, and to the right, next to the high-frequency apparatus, with the Tesla transformer, is seen a rolled-up partition. In case sufficient space is available, an adjoining room may be furnished with couches, separated by partitions. Here the patients may lie down after the treatment for about twenty minutes, comfortably resting on their backs, passing the time, perhaps, with light reading or some other diversion. This period of rest, after the treatment, is of very great importance; yet, in many modern institutes, it is not sufficiently appreciated. Rest is, indeed, a factor in physiotherapy. In special cases, where strenuous procedures are used, provisions must, of course, be made for a couch next to the apparatus so that the patient may be laid comfortably upon it. Fig. 2 shows an enclosure of that character used in the treatment of very fat patients. It is the well-known Bergonier outfit for obesity cures. This appliance is also of excellent service for passive muscle exercise in patients with severe cardiac diseases. The pulsating direct current applied for this purpose causes rhythmic contractions in the muscles one wishes to stimulate. Actual muscle exercise may be obtained by the application of sand bags or weights. It is, of course, absolutely necessary during such treatments to keep a constant record of the heart action. The Bergonier treatment may be combined with faradic or galvanic treatments. In paralysis following a stroke, for instance, the paralyzed muscles are first treated with the galvanic current, but, as a rule, we also stimulate, immediately thereafter, the non-paralyzed muscles, for example, the abdominal muscles, to activity by rhythmic shocks; by this combined method of treatment, we stimulate the flow of internal secretions into the blood, through the active muscles, inciting thereby the di-

(Continued on page 86)

THE PRESCRIPTION OF ALCOHOLIC BEVERAGES

The recent decision, rendered by Federal Judge Knox of New York, would seem of great importance to the medical profession because it establishes the fact that the Government has no right to dictate to a physician how much alcohol he may prescribe in a given time.

If the Government has the right to prescribe how much alcohol a doctor can use for his patients' welfare, it would seem that it would logically have the same right to limit the prescription of any other drug. The case will now go to the Supreme Court to decide upon the principle involved as to the extent to which the Federal Government may control medical practice.

It is well that the medical issue has been squarely presented to the courts, and it is to be hoped that the constitutional right of a physician to prescribe for his patients as he sees fit will be upheld by the court of last resort.

WHAT A TOWN OF ONLY 338 POPULATION DID

Canova, S. D., found itself in the winter of 1921-22 without a resident doctor. The Commercial Club realized they could not get one unless they had something to work with. They sold stock in a hospital building in twenty-five dollar shares which, it was understood, would pay no dividends and have no sales value. One hundred and ninety-eight stockholders took stock, and a fifteen thousand dollar building was erected. The building is equipped with operating room, wards and kitchen, and part of it is used for residential purposes by Dr. J. A. Lierle who has leased the hospital.

Thus, Canova got a resident physician and a hospital by utilizing the co-operative spirit of the community.

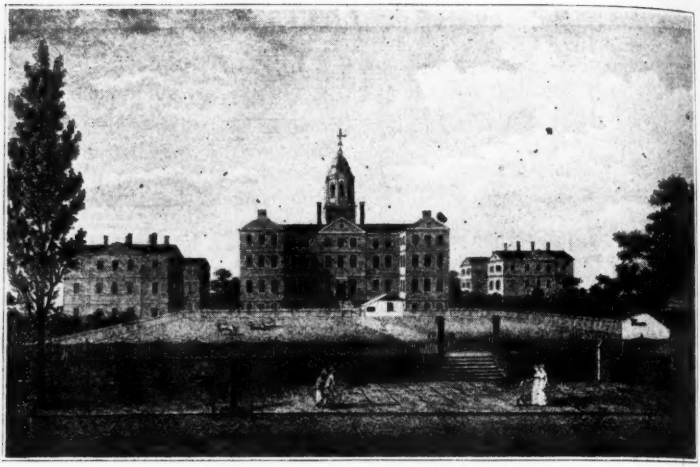
WEST SIDE HOSPITAL CHICAGO, ILL.

Mrs. Montir, who has charge of the housekeeping, showed her system of keeping check of the china, silver and linen used by the special nurses for their patients. In the hallway, adjoining the kitchen, is a bank of lockers each large enough to contain a tray with all its equipment on it. The door of this locker is locked all the time. When a nurse first goes on duty on a case, she is given the key of the locker and checks over the china and silver on the tray, and receipts for it. After serving the patient, the nurse washes the utensils and replaces it in the locker. Linen she receives every morning, exchanging the soiled linen for the clean, piece for piece. The nurse is, therefore, personally responsible for the outfit given her, and when she finishes the case, hands everything over to Mrs. Montir in the same condition she received it, i.e., everything clean and silver polished properly. Any missing or broken articles are charged to the nurse.

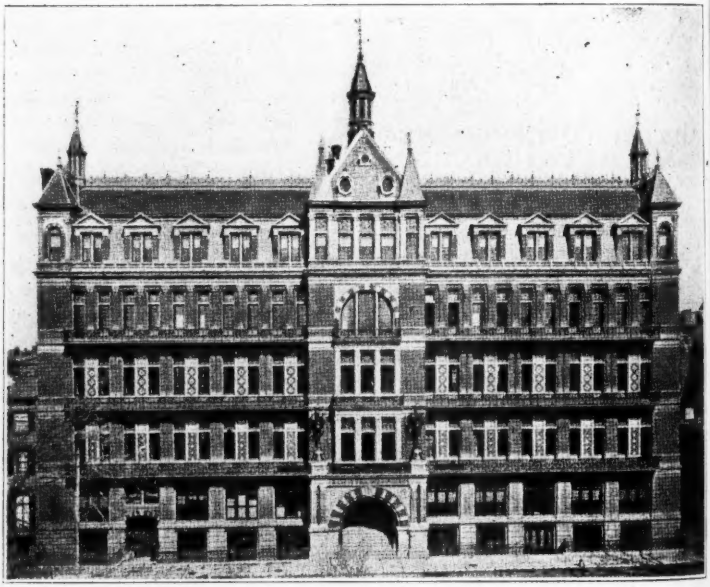
Mrs. Montir said since she inaugurated this system several years ago, she has practically no breakage and no missing silver or linen. She, also, said she had no trouble or disputes with the nurses.

At the West Side Hospital, food wagons have been used for many years each fitted to carry twenty loaded trays, and heated by a pan of charcoal in the bottom. They were made by a local shop to Mrs. Montir's own design.

The prevailing room color scheme in this hospital is cream color.



New York Hospital, Broadway, opposite Pearl Street. Opened for Patients, January 3, 1791



Present New York Hospital, West Fifteenth Street, Front

The History of the New York Hospital

THE history of New York Hospital is, in a sense, the history of New York City since the Revolution. The Hospital was actually founded before the War of Independence. It is the oldest hospital in New York State and probably in America, with the exception of the Pennsylvania Hospital in Philadelphia which was chartered through the efforts of Benjamin Franklin in 1751, and was the first incorporated hospital on this side of the Atlantic. So the New York Hospital, founded in 1771, has an interesting story to tell, one that must appeal to all hospitals throughout the country. To do justice to it involves telling about it in more than a few words, because it means going a good way back to its original start.

The first privately supported general hospital in London was St. Bartholomew's started under religious auspices by the Prior Lahere in 1123. It was that model, though without the ecclesiastic connection, that commended itself to the British colonies in North America. The idea of the New York institution originated with Dr. Thomas Bond, who, like many of his profession in that day, had studied medicine in London and Edinburgh. It was 18 years later that it fell to another physician of similar experience to suggest the establishment of such an institution in New York. The occasion arose in the famous Trinity Church of this city where in 1921 the 150th anniversary commemorative exercises were held.

It should be remembered that in the year 1769 the colony of New York, with a population of about 300,000 where there are now 6,000,000, of whom only about 20,000 lived in the city proper, had not a single hospital.

In 1767 a modest beginning had been made by the establishment of a medical department in King's College, now known as Columbia University. Two years later, on May 16, 1769, the graduating exercises of the first recipients of its medical degrees were held within the walls of the original Trinity Church. A notable assemblage, including the Governor of the colony, Sir Henry Moore, was present. It was then that Dr. Samuel Bard, a student of King's College and of London Hospital, a graduate in medicine of the Edinburgh University, eloquently urged the crying need for a general hospital. The appeal met with an instant response, and Sir Henry Moore then and there headed a subscription, although he did not live to see his work crowned.

The hospital was organized in 1770, and on June 13, 1771, in the term of Earl F. Dunmore, the new Governor, a royal charter was granted to "The Society of the Hospital in the City of New York in America," a seal with the legend of the Good Samaritan was adopted, the original silver die of which is still used by the Society, an annual appropriation of £800 for 20 years was voted by the Colonial Assembly, and steps were taken to secure an appropriate site. The original charter is still in the possession of the Society with the seal framed and placed in a revolving receptacle which is fixed in the mantel of the open fireplace of the Board of Directors' Room. During the War of Independence this charter, for fear of loss or destruction, was buried, and not dug

up again until the war was over and it was quite safe to show it again.

When the Society was looking for a site the city offered one of three-quarters of an acre near where the present Municipal Building, across the way from City Hall, stands, and Trinity Church, which, in 1755, had given King's College its grounds in Park Place, opposite the present City Hall Park, offered the hospital a 99-year lease of a two-acre plot at Canal and Hudson streets, about ten minutes walk from City Hall, but the Society determined to buy five acres of land on an elevated site on the west side of Broadway, opposite Pearl street, quite close by to City Hall. They talked of acres in those days of city land, where now we measure sales of property by feet in the Broadway section.

Dr. John Jones was sent to England to make a public appeal for funds, and to study European architecture. Dr. John Fothergill, the famous English physician, who was then conferring at London in an endeavor to avert hostilities between the mother country and the colonies, was so successful that he was chosen as one of its first Governors.

On September 3, 1773, the corner stone of the hospital was laid with due ceremony by Governor Tryon. Everything was ready and preparations had been made for the reception of patients when, on the 28th of February, 1775, with the building practically completed, an accidental fire consumed the interior, and, as the New York Gazette and Weekly Mercury described it, "this beautiful and useful structure, at once the pride and ornament of the city, became a ruin."

Nothing daunted, the Governors made a fresh appeal for funds, £4,000 was granted by the Colonial Assembly, reconstruction was begun, and within a year completed.

But then a new obstacle to hospital operation arose. The War of the Revolution had exposed New York to attack, and on April 2, 1776, the New York Committee of Safety ordered the Governors to have the hospital put in a proper state for the reception of Continental troops. Breastworks had been thrown up around the building, and the posting of troops there was deemed necessary for the defense of these works and of the city in general.

By the irony of fate the first hospital patients received in the building were several American soldiers who had been wounded July 12, 1776, in an engagement between the shore batteries and two warships forcing a passage up the Hudson. One of the cannon balls in that action landed in the hospital grounds.

In the fortune of war, the occupation of the hospital passed with the capture of the city in September, 1776, to British and Hessian troops. As their barracks, and occasionally as a military hospital, the building continued to be used for the next seven years. When the soldiers were withdrawn and the war ended, a tedious period of adjustment ensued. Among other complications, a reconstitution of the Board of Governors became necessary since several of them had been named in the bill of attainder. Some use in the meanwhile was made of the buildings for medical instruction, and the State legislature met there, but it was not until January, 1791, that the "Asylum for Pain and Distress," as the Governors feelingly described it, was finally opened for the treatment of patients. A few years later the corporate title of

the institution was changed by the legislature to the present form, "The Society of the New York Hospital." That notable landmark of the city, with its steely gray-stone buildings and beautiful trees, lawn and flowers, may still be remembered by some of those still living in the city today.

The grounds extended from Broadway west of Church street, which is a block from Broadway, and from Duane street north to Worth street, which is the first local subway station from City Hall now. The main building, with a handsome cupola, was in the centre, on the Worth street side was the North Building, on the Duane street side the newer South Building, and a laundry, extensive stables and a building for lectures and autopsies occupied other sites. In those days the hospital carried its own laundry and did not give out its work such as some hospitals do today because there were no such wholesale laundries with extensive machinery to do the work for public institutions.

This structural group, which contained about 500 beds for patients, continued in active use until 1870, when the Governors of the Society found the financial burden of maintaining a hospital on that spacious and valuable site, too heavy to bear. They accordingly vacated the buildings and leased the ground on long terms which have, from time to time, since been renewed. As soon as the necessary funds could be accumulated, a new hospital was built on the present site in Fifteenth and Sixteenth streets, west of Fifth avenue, about six minutes ride from City Hall by express subway trains. It is there that the work of the Society's General Hospital has since been conducted.

Having taken up, in 1875, emergency hospital work in the lower part of the city, the desirability of an ambulance service presented itself to the Society. In no other way could the injured or stricken obtain prompt medical relief. While regarded as neither an easy nor an agreeable service, the Society has not abandoned that service. How great that need has been is shown by the record of 245,000 ambulance calls responded to by the hospital since the service was installed.

The New York Hospital has for a hundred years held a commanding position of wide influence as a pioneer in hospitals, and has been the municipal centre of the art of medicine. Thus the Governors cooperated in the establishment of the New York Dispensary in 1795. Later it opened its doors to and sheltered the entire operations of the Society of the Lying-in Hospital from 1801 to 1827; the New York Lying-in Asylum from 1823 to 1825; the New York Eye and Ear Infirmary from 1824 to 1826, and the New York University Medical School from 1866 to 1869. There, in 1792, the first care in the State of mental disease was undertaken, and has been continuously maintained to this day. There, in 1799, a few months after Dr. Jenner had announced his great discovery in London, Dr. Valentine Seaman introduced vaccination for smallpox into America. There, from 1798 to 1870, a special service for sailors was maintained. There, in 1816, the philanthropic Quaker, Thomas Eddy, a Governor, the Treasurer and, afterwards, the President of the Society, who had made a study of the reforms then in progress in France and England, presented a memorable report to the Governors in which he advocated a radical change in the medical treatment of mental diseases. This

(Continued on page 84)

Department of Nutrition

Conducted by QUINDARA OLIVER
Dietitian, Children's Hospital, Boston, Mass.

THE profession of nutrition as compared with that of medicine or nursing is in its infancy. It thus has all the advantages and disadvantages that accrue to a new profession.

If for any reason the Department of Nutrition in a hospital does not function as it should the hospital fails to aid to that extent in the rapid restoration of its patients to complete health.

Perhaps you are familiar with the annual report of a seventy-five bed hospital in the middle west. It was rapidly losing in popularity in the community which it served when the Board of Directors decided that the crux of the dissatisfaction lay in the quality of food served to its patients. They secured a new superintendent having vision and personality with the understanding that a graduate dietitian should be employed at once.

With a personnel in her department capable of carrying through her ideals and directions a very marked improvement in the quality and service of the food was noticed in a month's time. This continued until the hospital regained its former popularity with all its beds contsantly in demand. This rapid change was possible because the members of the Staff and School of Nursing were of the finest.

We shall strive this coming year to make The Department of Nutrition, as conducted in THE HOSPITAL BUYER, an aid and inspiration to all who may read its columns.

NEW BOOKS

Recipes for Institutions. — Collected and edited by the Chicago Dietetic Association, Inc., in the interest of Better Food for the Institution. New York, the McMillan Company.

This book contains 153 pages of recipes contributed by over seventy dietitians, members of the Association, and for that reason claims that these recipes are practical, workable and have the merit of individuality.

What Shall We Have to Eat?— A practical plan for choosing the right foods for every occasion. By Jennie Ellis Burdick. The University Society, New York, $1.50.

A book on entirely new lines combining simplicity and practicability with a common sense listing of every known variation of the common foods and dishes. This work will be of great value to dietitians or anyone interested in the science of proper feeding.

Live wires are not often stepped on.

Radio in the Hahnemann Hospital, Philadelphia

By K. H. LANSING
Special Correspondent for THE HOSPITAL BUYER

RADIO on the largest scale of any hospital in the country is being installed in the Hahnemann Hospital, Fifteenth and Race streets, Philadelphia, through the liberality of the Ladies' Aid Society of that institution and, simultaneously, Superintendent John M. Smith has introduced motion pictures of an entertaining nature, through the generosity of the Selznick Pictures Corporation. The hospital already had its motion picture apparatus for presenting anatomical and surgical views in the clinic.

"The radio installation and work will cost about $2,000," said Superintendent Smith. "We are enthusiastic about the possibilities of radio in hospitals. It will mean that every patient can keep in touch with the outside world by means of the press dispatches and other features of broadcasting stations and that the weary monotony of lying in bed, day after day, will be broken by the concert programs. It is bound to have a beneficial effect on patients in cheering them up and keeping them in good spirits and every hospital knows what cheerfulness and recreation will do in hastening convalescence."

350 Headphones

The hospital receiving station, when finished, will be the most complete in Philadelphia. There will be 350 headphones, or one for every bed in the hospital and several additional ones.

In the wards the wires enter at the rear of each bed. The headphones are connected to one powerful receiving set capable of tuning in everything this side of the Rocky Mountains. While of course the really sick patients will be unable to take advantage of the headphones at their beds, as soon as they begin to be convalescent and the excitement will not prove harmful, they will be allowed to tune in.

Headphones will not be installed in the children's wards, as the average boy, restless from long lying in bed, would be apt to disintegrate his set. Accordingly, loud speakers are being placed in the children's wards and similar installments have been made in the chapel for the benefit of patients who may wish to come there for worship, and in the living room of the nurses' home. Rooms occupied by internes are being equipped with headphones, and the same is true of private rooms.

The receiving sets consist of three steps of radio frequency each, a detector and one step of audio frequency. A separate amplifier having two steps of audio frequency is connected to the set to operate the loud speakers, which require stronger signals. The receiving station machine is an assembled one.

Controlled from the Office

The apparatus is controlled from the hospital office and can be shut off at any particular point, or closed altogether, at will. The schedule in Philadelphia begins at 11 a. m. and runs until late at night, with, of course, long intermissions. In the hospital, internes may hear the late concerts with their headphones. The nurses' home loud speaker is shut off at 10 p. m., unless they have a party. At 9 p. m. the chapel loud speaker is in use and in the children's

wards the headphones are not used after 7:30.

While the work of installation is in progress, concerts already have been held and Superintendent Smith says that they have seemed beneficial and that the rooms, including the chapel, on which floor there is a ward, can be shut off, but that no one has desired it and there have been no complaints regarding noise.

Motion Pictures

With regard to the motion pictures, Superintendent Smith says that it will now be possible to have radio music at them in the clinic amphitheater when desired, through the use of a loud speaker, making an agreeable double form of entertainment.

"Our decision to have motion pictures of an entertaining character came about in a rather odd way," said Superintendent Smith.

"The policeman on our beat patrols Vine street and adjacent centers in which the motion picture companies' headquarters for Philadelphia are located. He evidently stands in well with them and it was this officer who called on me recently and said that the Selznick Pictures Corporation offered to furnish us, free of charge, once or twice a week, reels and an operator for performances. Finally the arrangement was made and owing to the courtesy of the corporation, we are making our motion picture plays a permanent institution.

"I was rather doubtful," continued Superintendent Smith, "whether we would find enough in the clinic amphitheatre, was a revelation and a success. We 'papered' the hospital well, in all departments, announcing the show and invited the internes, nurses, attendants and others, as well as the patients able to go. We had just one hundred and fifty as an audience and that determined us to continue the entertainments. Our own machine is well adapted to displaying the motion picture house reels to the best advantage. We use, of course, only reels of a cheerful nature, instructive and comic pictures included. I believe that both the radio and the motion pictures will exert a decidedly good influence on the patients."

Superintendent Smith is much pleased that the new hospital radio has won the attention of a local newspaper, the Public Ledger, which has just run the following editorial on the installation incident, and on the probable effect of radio in hospitals in the future:

"Hospital Radio

"A hospital may be an awesome place, just before the ether cone is adjusted, when you lie all scrubbed and aseptic and tricked out in white on the wheeled table in the little room just off the operating amphitheatre.

"It may be a cheerful, hopeful, delightful place, standing for dangers past and the busy preoccupations of life repromised when the operation is over—a success, thanks to your surgeon—the ether-throes done and a delicious bowl of chicken broth, with rice, succeeds the spooned dole of water and the grudged, luxurious bits of cracked ice.

"It is bound to be a dull and monotonous place, however, in the long days of convalescence, when a footfall in the corridor is an event to reawaken drowsing interest, and you wonder querulously why all your friends have deserted you, though some one dropped in but an hour ago. It seems a week since you heard his cheery 'Well, so long, old scout; you're looking right as rain.' You wonder desolately if the clock on the wall and your watch have gone

into conspiracy to stretch every day out to forty-eight hours.

"But no more. For now begins the reign of radio in the sick room. The Hahnemann Hospital leads the way with a complete bedside equipment of radio phones, with loud-speakers in the children's wards and provision for even the lowly internes whose only joy in life heretofore was driving the ambulance surreptitiously.

From now on, when a patient finds himself looking at his watch the hundredth time and wondering for the tenth what his bill is going to be, or why there are so many nurses with red hair, all he needs to do is unhook the receiver which hangs beside the buzzer button, strap it round his head and listen in.

"And on dreary, wakeful nights, when the most patient invalid will swear his nurse purposely left crumbs on the sheet to torture him, and the wails of scolding cats on a nearby fence bear a shrill treble to the complaining bass of the appendix patient in the room next door, the magic of the skies will hearten him with the brisk syncopations of a jazz orchestra a thousand miles from his cot.

"Who says this isn't a humane age?"

Portable Radios

There are two other hospitals in Philadelphia which have installed radio, but on nowhere near so large a scale as the Hahnemann. These institutions are the Philadelphia General Hospital and the Pennsylvania Hospital. A clever idea of mounting the radio on a tea-wagon, or "curate," has been put into practice there and the small vehicle is passed along the wards among the patients in turn. This system, of course, has the disadvantage of not permitting any one patient to hear much at a time, and, of course, all cannot enjoy a concert simultaneously. But it is undoubtedly a privilege greatly appreciated and, according to those in charge, there is every indication of there being a great future for this quiet form of entertainment in the hospitals of the country, as the idea is rapidly spreading.

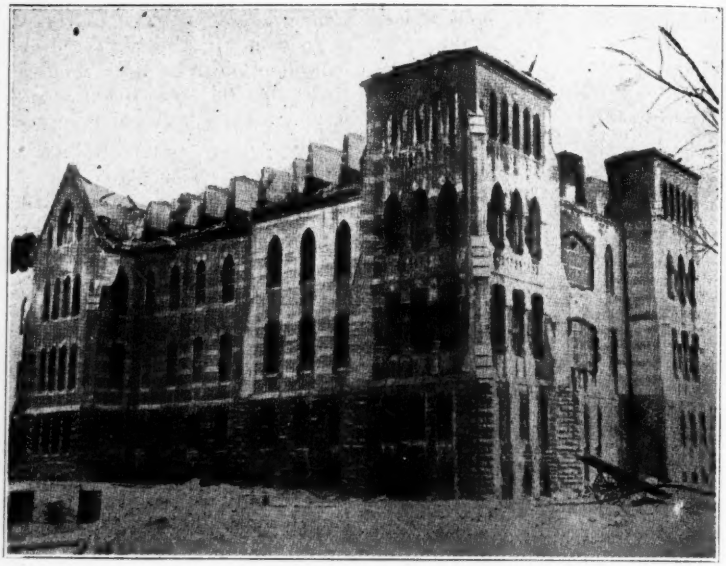
A lady from Albany also had heard the services at church which she would have otherwise been unable to attend or hear.

A lady from Providence, R. I., whose hearing is only fifty per cent normal listened by radio to every word of Governor Smith's address before the Albany Community Club.

"It was snowing last evening," she wrote, "and a strong wind blew from the northeast. The most remarkable part of it to me, however, is the fact that we have nothing attached to the radio running out-of-doors. About 75 feet of wire is strung about several rooms, a foot from the ceiling; the other end just resting on a metal bed spring (bed made up), a ground wire being attached to a radiator. The entire program was distinct and enjoyable."

From the foregoing it will be seen that there is ample evidence that the radio can be introduced generally in hospitals without difficulty, and to the delight and enjoyment of the patients.

A $1,000,000 development campaign for the benefit of Flower Hospital, Toledo, was conducted in that city during the last half of January and in north-western Ohio during February. Funds will be used for an addition to the present hospital building, an administration building, private hospital, ward hospital, nurses' dormitory, power house and domestic building.



The ruins of the Manhattan State Hospital. A typical institutional building

Fire Protection

The article on the following pages emphasizes the responsibility of hospital authorities to safeguard their charges against the horrors of fire.

Have you consulted your fire department as to your weaknesses?

Your insurance company will arrange for an inspection which may increase your protection.

Go over your building and look for accumulations of waste and inflammable material lying around in cellars and attics.

Inspect your fire extinguishers. They are useless unless in working order.

Fire Protection

From Bulletin of the National Fire Protection Association, Boston

THE Manhattan State Hospital on Ward's Island contains over six thousand inmates and is one of the largest institutions for the insane in the world. The main structure, in which the fire occurred, was fifty years old and so built as to facilitate the rapid spread of fire. It had accommodations for 2,200 patients and there were about 1,600 in the building at the time.

In 1920, the National Board of Fire Underwriters made a survey of the institution and at that time recommended the installation of automatic sprinklers and other safeguards, pointing out that the buildings were lacking in fire resistive features and contained blind attics and other concealed spaces which together with the absence of protection for communicating passages and vertical openings (such as stairways and shafts) made the structures veritable *fire traps*. The engineer of the Board also stressed the inadequate and unreliable water supply and the poorly equipped fire-fighting force.

The superintendent of the institution recognized the fire hazard and had *repeatedly tried to obtain more adequate apparatus and other assistance from state and city authorities*. The island's fire department consisted of a fire chief and ten attendants who were detailed for fire service although they also had other duties. The equipment consisted of a motorized fire engine, an ancient horse-drawn engine, a hose cart and a hook and ladder truck.

Story of the Fire

The fire was discovered at 5:05 o'clock on the morning of February 18, 1923, by an attendant. An electric light went out and he noticed that the metal ceiling above was red hot. The attendants had the presence of mind to give the "all out for breakfast" call and succeeded in getting many of the inmates into the dining room out of danger before the flames burst through the ceiling. From then on the rescue work became more difficult as the patients became excited and had to be dragged out by attendants. The fire fighting was hampered by the zero weather and the extreme difficulty in getting apparatus to the scene. The New York City force had to go to the fire without equipment as there was only a small ferry, of insufficient capacity for fire apparatus, to the island. Fireboats had to run hose lines for nearly half a mile before water reached the fire. In spite of these handicaps the fire fighters succeeded in confining the fire to the two upper floors of the west wing.

The rescue work had been progressing rapidly when a large water tank in the attic fell through the ceiling and blocked the corridor. Firemen were unable to penetrate beyond the tank. While there was a fire escape at the other end of the corridor the victims were apparently unable to reach it through the smoke and flames. The fire was not completely extinguished until noon. Twenty-two patients and three attendants were burned to death. Two other patients died of exposure after being removed to another ward.

The Manhattan State Hospital is typical of thousands of institutional buildings throughout the United States and Canada.

Over a million sick, crippled, aged, blind, insane, orphaned and otherwise unfortunate or defective persons are ordinarily found in

some ten thousand institutions in the United States and Canada.

Defective Chimneys

Defective chimneys, poorly installed stoves and furnaces, defective equipment, careless handling of inflammable liquids, spontaneous combustion in accumulations of rubbish, smoking, and carelessness with matches are among the fire dangers that jeopardize life in institutional buildings and are responsible for much of the fire outbreak.

In the majority of institutions some steps have been taken to provide protection against fire. These sometimes are so meagre and misdirected as to be practically worthless, as was the case in an institution for blind children, where a liberal supply of dry powder extinguishers, usually unreliable and ineffective in case of fire, had been provided where no provision was made for fire alarms or exits, even on the upper floors where the children slept.

There are powerful forces which a conscientious management can bring to its aid in fighting the battle of fire protection—the greatest of which is public opinion. America certainly has wealth enough to give protection to her unfortunate.

Automatic Sprinklers

The next best thing to preventing a fire from starting is to see that the fire that starts is invariably extinguished while it is still small. The automatic sprinkler system is beyond question the most dependable device for accomplishing this, as is witnessed by a remarkable record of performance covering over thirty-five years.

Cleanliness and order are, generally speaking, good in institutional buildings, but hazardous conditions are likely to exist in basements, attics, and workshops, and especial supervision and effort are necessary to keep these places clean.

Heating equipment is responsible for more fires in institutional buildings than any other one cause, and smoking and careless handling of matches ranks second.

Construction

Many existing institutional buildings are of frame or wood joisted construction. The need therefore is for immediate action toward the improvement of these buildings. An intelligent examination of even a limited number of institutional buildings will convince the most skeptical of the present danger.

The ordinary wood joisted institutional building is a potential furnace, with masses of wood, dry as tinder, enclosed in over-like walls. The speed with which fire spreads in such buildings is often appalling. Brick or stone walls add nothing to the safety of a building with a wooden interior.—*Data from Fire Protection for Hospitals, Asylums and Similar Institutions, by H. W. Forster, Chairman Committee on Safety to Life, National Fire Protection Association.*

CURDLING OF FROSTING MADE WITH BROWN SUGAR AND MILK

In the dark brown sugar there remains enough of the formic acid contained in molasses to curdle milk if the two are heated together, and there is a large proportion of sugar to a small proportion of milk. This curdling often disappears with vigorous beating, but a very small amount of baking soda added will neutralize the acidity, and the milk will not curdle.

—*American Cookery.*

Hospital Records

More About Purchase and Issuance Records

Conducted by C. L. NEU, A. B., Chicago

Mr. D. Adams, Steward of Jefferson Hospital, Philadelphia, Pa., in the article presented here, which he entitles, "Records That Give the Administrator Control," describes the manner of issuing and keeping tab on the supplies in his institution. It will be noted that the writer emphasizes the importance of (1) Internal Requisitions and (2) Perpetual Inventories, both of which were discussed in this department in the May issue. The classification of supplies and the methods of issuing and storing which Mr. Adams brings out in the following paragraphs will be of great practical value to our readers.

MANY months ago, the Medical Director of the Jefferson Hospital decided that he wanted a system installed that would show the distribution of the Stores and at the same time enable one to ascertain the amount of any commodity on hand at any time. A system of Store-Room bookkeeping was installed with a perpetual inventory, which has proven very satisfactory.

No articles of food or merchandise are allowed to leave the Store-Room without a requisition. These requisitions are priced and deducted from the totals shown on the inventory sheet, thus giving at all times the amount on hand and at the same time showing where and in what quantities the stores have been used.

For example, the store-keeper can tell at a minute's notice how many surgical gowns, ice-caps, hot-water bottles or the amount of gauze on hand by his records. Our experience has been that this method is very much more satisfactory and economical than the old method of "Hit or Miss" in distributing supplies. The clerical cost is naturally increased; but this is off-set by the efficiency and the control. Besides, it is more business-like to justify expenditures by records which will readily show where and when supplies were used, and the amount on hand.

We classify our Food Supplies as follows:

Bread.
Milk and cream.
Groceries.
Butter and Eggs.
Fruit and Vegetables.
Meat and Fsh.
Poultry.

At the end of each month, a report is made from the records, showing the comparison of the current month with the month of the previous year. If there is very much difference in any of the items, an explanation is given. For instance, the Milk and Cream column shows an increase of $250.00 over the corresponding month of the previous year. We find that the price of milk is 1¼c per quart higher this year than last; also the Census Records show 1,000 more patient days. We can in this manner, analyze each and every class of food costs.

We do not carry fresh meats, poultry, fruits and vegetables, milk and cream, ice-cream, or butter and eggs in our stores, but charge them direct to Dietary supplies.

We have learned that it is advantageous to have contracts for daily deliveries of most of these supplies although fruit and vegetables can be purchased at the mar-

ket price, three or four times a week, thus insuring freshness and a close touch with the market.

Proper storing facilities are also factors that enter into efficient hospital management. To have a place free from dust and at the same time dry and attractive, is very desirable. A Store-Room should be furnished with shelves for groceries, and bins with solid or glass doors for gowns, toweling, napkins, bandage muslin, hot-water bottles, sheeting, sheets, pillow-cases, spreads and the other thousands of articles that go to make up the Stores of a large hospital.

Stationery is another item of considerable expense in most institutions and care should be exercised regarding this item. It should be carefully checked on all requisitions, for in many cases the nurses in charge of the floors or wards will order when they have the very thing they are requisitioning in their stock closet.

One day a week should be set aside for ordering certain things, Friday, we will say, for stationery, pins, etc., Thursday for surgical supplies, enameled ware, gloves, etc. Oranges and a few necessary things that are required every day, must be requisitioned daily. The store-keeper should always insist that old or broken ice-caps, hot-water bottles, enameled ware, mops, mop-handles, brushes, glasses, and pitchers etc., be returned when ordering others. The reason for this is obvious to all hospital administrators.

Stationery can be stored nicely by having movable shelves arranged in sections and held in place by bolts, so that the space can be enlarged if found necessary. On the top edge of each shelf, the "Form Number" of the printed matter can be placed by inserting a slip of cardboard in a holder. In the store-keeper's office, a chart can be kept with the "Form Numbers" arranged in numerical order, giving the section in which each "Form" is stored. This not only enables those in charge of the Store-Room to find any piece of stationery desired quickly, but at the same time, it is an orderly arrangement, keeping the stock fresh and free from dust, each "Form Number" being in a separate compartment.

The requisition for supplies should be approved by some one in authority, who is responsible for the running expenses of the institution. If the administrator is too busy, then some one should be delegated to this task who is careful and conscientious, for here the waste, if any, in the whole institution can be checked, and supplies of all kinds, regulated.

Finally, this system of distribution and keeping of acounts is of no value unless the information obtained is analyzed constantly, to determine if ther is any waste.

QUALITY PROTEINS

It is now known that some proteins promote growth and are of good quality, while others are seriously deficient. For example, gelatin protein is very poor while milk protein is very rich. As far as is now known, milk protein contains all eighteen amino acids in the good proportions which go to make up a perfect protein.

Gelatin contains only relatively few of these amino acids, and they are in poor proportion.—M. O. Maughan, Sec'y. National Dairy Council.

Tea is the cheapest beverage there is. One pound of good tea will yield 300 cups of proper strength to get the best boquet or flavor.

Health the Most Important Asset

By EDWARD SWALLOW

Formerly Pharmacist, Outpatient Department, Bellevue Hospital, N. Y. C.

The health of the individual is about the only thing in this world which is of supreme importance in connection with that ideal condition we call happiness. The child with diphtheria, the young girl just budding into womanhood who has tuberculosis, the grown woman with cancer, the man with that scourge of society, syphilis, or even the boy with a raging toothache cannot be persuaded they are enjoying life from a physical sense. Pain and disease though unfortunately common enough to mankind are entirely antagonistic to material happiness which accounts for the earnest strivings of man from the earliest of times to find cures and preventive measures for those ills we are liable to contract. Therefore do we hold in highest esteem and honor those scientists who devote their time and knowledge to research in discovering and giving to the public specifics for such dread diseases like syphilis, and prevention methods for the one-time fearful epidemic diseases such as small-pox, yellow fever and influenza. The thousands of medical men and surgeons in conjunction with other scientists in every civilized country, whose lives are devoted to relieving and curing disease in its many forms are in reality the greatest benefactors to their fellow citizens living among them, forming as they do a scientific and sympathetic force always at work in fighting against and removing the physical obstacles in the way of a possible state of physical content in existence. The health of the individual is his most precious possession and consequently the most important physical asset of a nation.

Men and women who are sick half the time cannot accomplish much in any direction, it being against reason to expect normal results from them, and every land shows statistics proving the economical loss owing to the lack of health of its people.

Indeed if the time and money (not counting the pain and misery) were calculated the loss to the nations supposing only half of it could be prevented, would remove most of the poverty and misery from the world making it a much happier place to live in generally.

It is a great and noble work the medical profession is engaged in. Constructive work of the utmost value in building up and repairing the physical (and in numerous cases the mental) health of the people. Toning up and conserving these things in the individual so as to afford a nation as one family to get the best out of life and make for the progress of civilization and the betterment of humanity at large.

By countless bedsides of the sick, doctors stand bringing hope and courage, and the promise of restoring by their skill and learning some measure of health to make life once more enjoyed and worthwhile. True it is that physicians are paid for their services when their patients are able to pay, but when account is taken of the enormous amount of free service given generously and daily to our hospitals and public dispensaries by our medical profession in every branch it is safe to assert that in no other calling is knowledge and experience so freely and ungrudgingly given or such good results achieved.

That the health of the people is a most important asset is clearly recognized and proved by the ever increasing number of hospitals and other institutions for the care and cure of the sick. What with the work done and services given in these philanthropical places by our medical profession and that done by them in their private practice, the profession is fully justified in looking upon the nation as one large family whose health and bodily welfare is in their charge in a marked degree and anything which happens to prevent the proper discharge of their responsibilities affects them seriously as they fully understand the harmful effects to their patients.

Science as exemplified in the medical profession, is not concerned with the quarrels and wars of nations. Where the one hurts and destroys leaving misery and untold suffering behind it and is cursed by all concerned, the other heals and uplifts and confers that happiness at least which health can give, and is forever blessed and honored. So will it ever be for life is sweet and precious to us all be we rich or poor, sick or well, and seeing we are not responsible for our parents or where we are born this fact makes anyone's life of equal importance to the medical profession the world over.

Being imbued with this all-embracing beneficient spirit of broad-minded helpfulness to suffering humanity it is not to be wondered at that the medical profession of America was alarmed and dismayed some few years ago when war stopped foreign made supplies of medicines which formed in innumerable cases the sole treatment for their patients and the stoppage of which constituted a distinct menace to the lives of their patients who were in their care. The profession felt for some time that they could not do full justice to those persons infected with syphilis when the remedial agent they had been using for years was suddenly unattainable. Fortunately this condition of affairs was finally overcome and a like remedy was produced for their use by our own scientists who rose to the occasion in such manner as to entirely meet the emergency and for the future make it impossible for the remedy to be lacking, war or no war.

Health being the important asset of a nation which is the partciular province of the medical profession to conserve, the experience of the past has brought to its members the significance and necessity of making and using American made remedies.

Last August an article appeared in the "Weekly Dispatch" written by Lord Birkenhead, Lord High Chancellor of Great Britain entitled "Shall German Brains Beat British?", who pointed out that "Hate and loathe war as he may, the patriot statesman has got to reckon with the fact that the past history of the world is full of wars, and that, whatever his hopes may be, he must act on the supposition that war has not come to an end."

It is not a question as far as medicine is concerned of shall Americans beat those of any other country. We are not afraid of our American scientists being found wanting in any respect and know they will be well to the fore especially if encouraged by their own people. What we ask of them to meet the requirements of the medical fraternity for the needs of the sick they can and will produce and we trust for all future time the people of this great nation may rest in confidence and security in this knowledge. Sufficient unto the day may American medicines always be found.

The Value of Publicity in Raising Hospital Funds

By LEAH M. BRADLEY

Writer With the Phoenix News Publicity Bureau, Inc., New York City

THE medical world has seen a great change in the attitude toward publicity in the last three years. Medical men no more than before are in favor of personal publicity, but they are seeing the good that can be accomplished through general publicity in the interest of public health and they are seeing as never before the necessity of publicity for hospitals.

A woman physician in the Hospital Information Bureau of the New York Academy of Medicine aptly expressed this change when she said that there was a growing sentiment on the part of physicians in favor of "collective publicity."

The most conservative of physicians if questioned today will concede: First, that publicity is a great aid in raising funds for hospitals; second, that there can be publicity without the violation in any sense of medical ethics.

This is true in New York where the total real estate investment of the hospitals is $80,000,000 and where the total yearly cost of maintaining the hospitals is $35,000,000, and it is true in smaller communities.

"The public is entitled to know what service a hospital can give it," said a director of a great New York hospital. "The hospital is the public's institution."

Dr. E. M. Bluestone, assistant director of Mount Sinai Hospital, another great New York hospital, said recently in discussing hospital publicity: "A hospital lives by its reputation. The greater the reputation the greater the income from private sources." No direct appeals for funds are made by Mount Sinai Hospital. Publicity is endorsed by it, however, as a means of educating the public and indirectly as an aid in securing contributions.

"A hospital through the right kind of publicity can train a man in good citizenship," said Dr. Bluestone. "It can tell a man what to do to prevent disease. The laity has not been educated to the hospital idea. By showing what has been done a hospital can show what can be done. The question of the co-operation of the patient is very important and the co-operation is better where the patient knows about the service the hospital is prepared to give.

"The struggle that many hospitals have in making both ends meet is tragic when it is considered that the purpose of a hospital is to prevent and cure disease. Publicity can fulfill a two-fold purpose. It can educate the public in health methods and it can be of great assistance in securing contributions. Very often money is given for a special purpose when the donor sees what a hospital has done along the same or a similar line. The indirect appeal for support through the education of the public is the more gentle way of soliciting funds and if it can be done it is much the better way."

An Individual Problem for Every Hospital

No set rules can be laid down for hospital publicity. In every case it depends upon the hospital, the community it serves and the needs of that community. Publicity to secure funds for a new hospital in a district badly needing such an institution must be different from

the publicity of a well-established hospital. In the first case, the public must be awakened to the need of such an institution in the neighborhood and there must be a direct appeal for funds. When the needs of a community require a hospital to increase its facilities the direct appeal may also be necessary. In this case the hospital must tell what it has done, as well as what it is planning to do.

How often should publicity be given out is a question that is often asked. The majority of hospitals wait until they need public support before they tell the public about themselves. Today there is a growing belief on the part of hospital managements that when there is any real news about the hospital they should tell it and that they should keep the hospital before the public twelve months a year.

Newspaper Publicity

Of all the forms of bringing the hospital before the public the most important is the newspaper. In campaigns for funds, the organization, through committees, the direct appeal by letter and publicity through pamphlets, posters, banners and buttons are important, but with these there must be newspaper publicity. Co-operation only can come through the clear conception of the needs of the community and the capacity of the community to meet those needs.

Hospital superintendents who are in a position to know say that there is no question about securing the co-operation of newspapers if the newspapers themselves are convinced of the worthiness of the movement. If real news is written in newspaper style and sent to the newspapers it is certain that it will be printed. The writing of hospital news is an important point to be considered. It is not true, as is often asserted, that the only hospital news that the papers are willing to print is personal news about individual hospital cases of an unusual nature, the publication of which with the name of the attending physician is a clear violation of professional ethics.

A professional writer with a sense of news values and of what is interesting to the public can find much to write about in any hospital and he can do this without violating medical ethics. The public has a right to know about the financial arrangements of a hospital. Baldly stated, it wants to know how a hospital spends its money. A hospital that is supported by the public and receives its patients from the public should tell the public how every penny is expended. A hospital is a great human institution. The public is interested in knowing how it cares for the little children who are patients within its walls and what services it renders mothers in its outpatient department. The outpatient department is always an interesting field for news.

The public is interested in such commonplace things as the amount of commodities a hospital must buy. Women readers like to know about the kitchen and about the preparation of food for the patients. Women readers, and men, too, for that matter, will follow with interest the suggestions of hospital dietitians. When a new building is added, the plans for this building are read with interest. The news photograph is also an important factor in newspaper publicity. A picture often can carry a great appeal. It should be possible to get good pictures in any hospital.

Within the last several years publicity for hospitals has developed to the point where it serves a double capacity: First,

(Continued on page 82)

Motion Pictures in the Hospital

Note.—The Motion Picture has been so widely adopted by hospitals as the simplest and most enjoyable form of entertainment for ambulant and convalescent patients, that this article by Mr. Mitchell is both timely and practical. Mr. Mitchell is General Manager of The Beacon Projector Company, 521 West 57th St., New York City.

THE portable motion picture projector provides an excellent means of furnishing entertainment to convalescents and chronic cases in hospitals. The ordinary sights about a hospital are not particularly entertaining or cheerful in spite of the best efforts to the contrary and to be transplanted, if only for a little while, to new sights and new scenes provides a source of many hours of pleasant speculation.

In the selection of a motion picture projector several important features should be considered, as follows:

1. Simplicity of design and operation so that it may be safely and satisfactorily operated by those with but little experience.

2. Fire safety, so that it will not endanger either the patient or the building.

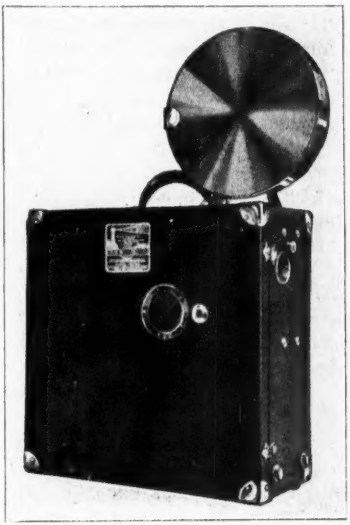
3. Ability to use a standard width film (35 m.m.) if a satisfactory source of narrow gauge (28 m.m.) is not available.

4. The approval by the Underwriters Laboratories conducted by the National Board of Fire Underwriters so as not to affect the insurance laws and insurance regulations.

Laws and Insurance Regulations

The State laws regulating the showing of motion pictures in most cases vary in each state and are unfortunately frequently complicated by local ordinances. In general, however, the following applies:

"A motion picture projector equipped to take standard 35 m.m. film whether inflammable or non-inflammable must be operated from a fire proof booth and by a licensed operator. A projector equipped to take only 28 m.m. non-inflammable film does not require an operator or a booth."



Portable Motion Picture Machine

These laws were adopted at a time when the only non-inflammable film available was in the 28 m.m. width. This is no longer the case and in some instances laws have been amended to exempt 35 m.m. non-inflammable film from the restrictions as to a booth and operator. In some states inflammable film is also permitted with certain restrictions as to the type of machine in which it will be used.

The National Board of Fire Underwriters adopts the stand that non-inflammable film of either 35 or 28 m.m. width may be used without a booth.

Films

Film is produced in two sizes, 35 m.m. and 28 m.m. The former both on inflammable and non-inflammable stock and the latter only on non-inflammable stock. The 35 m.m. width is standard the world over and all theatrical film is on this size. Unfortunately the proposition of non-inflammable film in the 35 m.m. width at this time is rather limited but as the non-theatrical field is now recognized throughout the motion picture industry as a field of great opportunity in which non-inflammable film is an essential element, production of this type of film in 35 m.m. width is receiving a great stimulus and in the near future extensive libraries of this film will be available.

In point of cost and availability at the present time the inflammable film has a distinct advantage however, and if a hospital can accommodate a portable booth it would be desirable. Such a booth can be easily put up and taken down or put upon casters and moved from one place to another. These booths cost about $150.00.

There are numerous sources of film available to a hospital without charge from the National Government Bureau, the Y.M.C.A., and industrial concerns and elsewhere, some of which is on non-inflammable stock and all 35 m.m. width. The regular theatrical exchanges usually will furnish programs to charitable institutions at a very nominal cost about all of which will be on inflammable 35 m.m. stock.

Frequently, the local theatres will furnish their programs to the hospital on the day following their own showing with the approval of their exchange.

In some instances the restrictions on the use of inflammable film have been avoided by using a projector outside of a window and showing through the window. With a little ingenuity this is usually possible.

DRY-CLEANING

G. O. R. writes: "Please tell me the formual for the dry-cleaning compound used in tailor shops."

The term "dry-cleaning" is something of a misnomer, for in the usual dry cleaning establishment the goods so treated become very wet but with gasoline, not with water. In the process of dry-cleaning the goods are first made free from dust and clinging dirt, then they are immersed in a tumbler washer containing purified gasoline in which is dissolved a gasoline-soluble soap, next they are transferred to a washing machine containing purified gasoline only, and finally are dried by hanging in a room heated by steam coils or hot air. Fans are sometimes used to hasten the drying process.

If it is not desired to clean the goods by immersion, but simply to apply by rubbing a preparation that will remove grease spots and the like, a cleaning fluid like the following may be used:

Methyl salicylate	4 cc.
Chloroform	8 cc.
Ether	4 cc.
Gasoline, enough to make	500 cc.

Thoroughly brush the garment to be cleaned. Saturate a cloth (if possible of like material as the garment) with the cleaning fluid; apply and rub with a circular movement. Carbon tetrachloride may also be used as a cleaning fluid, and is to be recommended because of its non-combustible nature.

The Food Value and Dietetic Properties of Edible Gelatin

By THOMAS B. DOWNEY, PH. D.*

THE increasing popularity of edible gelatin in the hospital cuisine has followed the realization that it possesses many remarkable advantages as an adjunct in special dietaries. Preparations of edible gelatine have proved to be advantageous by making available to various types of patients an easily digested, nutritive food which aids in the digestion of other foods and which lends itself to the production of dishes which are appealingly attractive in appearance and pleasing to the taste. A consideration of the dietetic properties of edible gelatin is highly desirable at this time, as the knowledge of its food value has recently been considerably extended and the existing literature on the subject abounds in conflicting statements, some of which are absurdly incorrect.

The name edible gelatin designates an animal gelatin suitable for food purposes. It has been chosen to avoid the confusion of this food with other substances which have the property of congealing, gelatinizing or forming jellies, and have been called "gelatines."

The edible gelatin placed on American markets must conform to certain governmental standards or specifications of purity, as tentatively fixed by the United States Department of Agriculture (Bureaus of Chemistry and Animal Husbandry), and some states have exacted even higher standards. The United States requires a purer product than any other nation. In fact, American imports of edible gelatin are relatively small, as many foreign manufacturers are unable to meet the standards of purity demanded in this country.

The Raw Materials and Manufacturing Process for Edible Gelatin

Since the American manufacturer must obtain a bright gelatin of high jelly strength, delicate bouquet, and free from injurious mineral matter and harmful bacteria, he is automatically controlled in the selection of clean, carefully selected stock. Calf stock and dephosphated hard bone, known in the trade as "ossein," are the two principal raw materials used in this country. It is surprising that such authoritative reference works as the "Standard Dictionary" and Murray's "Oxford Dictionary" perpetuate the popular error that **hoofs and horns** yield gelatin. Hoofs and horns proper consist of keratin, a substance quite impossible of being converted into gelatin. Collagen is the nitrogenous material present in ossein and the corium or true skin of calf stock which is converted into gelatin by heating with water. In the cuisine a knuckle bone is used in making the best soups, and gelatin is thus obtained by the same general method that the industrialist employs.

In the manufacture of edible gelatin, the stock is freed from extraneous material and plumped (*i. e.*, swollen) by treatment with lime water. The lime is removed by washing and the purified collagen is converted to gelatin by warming repeatedly with portions of fresh water. The gelatin solutions so obtained are filtered through paper pulp, concentrated by evaporation in vacuum pans, congealed in sheets and dried as rapidly as possible. These dry sheets are usually granulated by

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grinding and the product is packed in tight containers for shipment. In this form, edible gelatin contains from 10 to 16 per cent of moisture and can be stored in dry places without any fear of deterioration. Its natural color has a yellowish cast. When placed in cold water, it swells to many times its normal volume; and when this mixture is warmed above 40°C., or 104°F., the swollen jelly goes rapidly into solution. When a solution containing two or more per cent of gelatin is allowed to stand at about 10°C., or 50°F., a firm jelly will be formed. If the jelly is warmed above 40°C., a solution will again result. The gelatin table desserts contain from 2 to 2½ per cent of gelatin; that is, from 2 to 2½ level tablespoonfuls of granulated gelatin to 1 quart of water.

The consumer is assured that the edible gelatin made in the United States is prepared from clean materials, by carefully controlled methods, in sanitary plants which compare quite favorably with well-arranged household and hotel kitchens. Only pure chemicals, such as must be used in food products, can be employed in the manufacture of edible gelatin.

Dietetic Properties of Edible Gelatin

Edible gelatin is recognized as a valuable addition to the dietary for the following reasons: easy digestion and ready absorption, protein-saving ability, efficient aid in the digestion of other foods (with particular reference to milk and milk products), remarkable supplementary value when fed with many protein foods, useful physiological effects, and unique property of forming the basis of many dishes exceptionally attractive in appearance and appealing to the taste.

Gelatin is one of the easiest proteins to digest and its cleavage products are very completely absorbed by the system. The enzyme pepsin of the gastric juice in an acid medium converts gelatin into the corresponding proteoses and peptones; while trypsin, an enzyme of the pancreatic juice, breaks up its molecules into the corresponding amino acids with great rapidity.

Protein-Saving Ability of Edible Gelatin

While gelatin as the sole source of protein in an ingested food cannot supply all the body requirements, still it can perform the very valuable function of materially decreasing the waste of body nitrogen. Dr. Krummacher, from a series of feeding tests, concluded that gelatin supplies the body with energy, hence prevents the cleavage of body protein. When gelatin was fed in his experiments, the cleavage of protein was 62.6 per cent less than during fasting. In an experiment on a man Dr. Murlin found that it was possible to supply 63 per cent of the total nitrogen in the form of gelatin nitrogen for a period of two days, and still to maintain a daily retention of nitrogen amounting to 0.71 gram.

Gelatin is like all proteins in that it is composed of amino acids joined together to form the big protein moleclue. When gelatin is digested, these amino acids are liberated, taken up by the blood and distributed throughout the animal body, where they are again built up into protoplasm and muscular tissues. Some of these amino acids (glycine) can be manufactured by the body, others (notably tryptophane) cannot be synthesized. The cleavage products of gelatin do not contain tryptophane, and only very small amounts of cystine and tyrosine are present therein. Considerable evidence supports the view that the absence of these

amino acids renders gelatin a protein which cannot be used as the sole source of protein food for long periods of time. Consequently, gelatin has been called an incomplete protein.

The classification of proteins as complete, partially incomplete and incomplete are relative terms and liable to lead to misconceptions. In fact, nutrition experiments have demonstrated that there are relatively few complete proteins, and that the so-called complete proteins may serve as the sole source of protein food only when ingested in abundance. When fed in reduced amounts, they behave as partially incomplete, because there is a shortage of certain essential amino acids. For example, the complete proteins, edestin from hemp and casein from milk, where ingested in reduced proportions, must be supplemented with the amino acids lysine and cystine, respectively, before normal growth of animals can be secured.

Professor Sherman, of Columbia University, in his book on "Chemistry of Food and Nutrition," says that in view of the evidence, it is important to guard against the impression that incomplete proteins are useless for growth; and that "the growing organism may use such proteins to extremely good advantage, but the incomplete proteins must not be permitted to displace the complete proteins to too great an extent if the young organism is to grow and develop at a fully normal rate."

The Supplementary Value of Edible Gelatin

One may conclude from the above statements that greatest benefits from edible gelatin are to be obtained by combinations with other foods. Indeed, recent feeding experiments with the albino rat have shown that gelatin is an exceedingly efficient supplementary protein food for these animals in many food combinations. Where combined with the poor proteins of the oat kernel, Prof. E. V. McCollum, of Johns Hopkins University, reported that gelatin was more efficient in promoting growth and health of experimental animals than casein, which is a complete protein. It is to be borne in mind that results obtained in feeding experiments with the albino rat are comparable with the nutrition of human beings.

Prof. McCollum states that the standard food mixture with its 9 per cent of oat protein is deficient, but becomes adequate to support growth at the normal rate to the full adult size when 10 per cent of gelatin is added. "This serves as a remarkable illustration of the need of an understanding of the degree to which the proteins of one natural foodstuff make good the supply of the cleavage products of another which are present in smallest amount. . . . the oat proteins are improved by the addition of 3.5 per cent of gelatin." In referring to wheat proteins, he says that "so small an addition as 3.5 per cent of gelatin, because of its high lysine content, greatly increases the utilization of the wheat proteins. Without this addition, growth takes place at a rate approximately half the normal expectation. With gelatin addition growth proceeds at the normal rate."

These authoritative opinions induce the conclusion that white wheat bread and whole wheat bread will be increased in nutritive value by the inclusion of gelatin. The writer in recent feeding experiments has found that the addition of 5 per cent of gelatin to white wheat bread (salts and vitamins A and B were added) improved the food value to such an extent that experimental animals

grew at a normal rate and were able to reproduce and raise healthy, well-formed young. While on this same ration, but without the gelatin, the animals grew at about one-half the normal rate; two young were raised on this ration, but they were very scrawny and poorly formed. The writer has also established that gelatin is an efficient supplementary protein for the proteins of whole rye, pearled barley and whole barley.

It is, therefore, apparent that gelatin, where ingested with many cereal grains, yields a superior food combination by virtue of its amino acid content. Gelatin contains 5.9 per cent of lysine, an essential amino acid, intimately connected with growth and growth stimulation. Histidine and arginine are also present in the cleavage products of gelatin. Prof. Barnett Sure, of the University of Arkansas, advocates the inclusion of proline as the seventh essential amino acid; gelatin contains 10.4 per cent of proline and 14.1 per cent of oxyproline.

Edible Gelatin Increases the Nutritive Value of Milk

Dietitians have given considerable thought to the importance of food associations, in order that one food (as related to protein and vitamine content) may supplement the deficiencies of others. However, they have been prone to overlook the association of foods with the motive of obtaining a food mixture which is easier of digestion and more readily assimilated. Edible gelatin is a very valuable food in this respect, as it materially aids in the digestion of food products by virtue of its protective colloidal and emulstatic effects. The easier digestion and more efficient absorption of milk and milk products where gelatin is present have been conclusively proved by clinical experience and by laboratory experimentation.

The great importance of milk as a food, especially for infants and children, justifies an amplification of this statement.

When cow's milk is taken into the stomach the milk casein is coagulated into dense flocks or curds by the hydrochloric acid and rennin present in the gastric juice. The fats, present in the emulsoid state, are carried down to a great extent by the casein, forming masses that are tough, leathery and difficult of digestion. However, where gelatin is present in cow's milk, it acts as a protective colloid and renders the casein insensible to quantities of acid and rennin which would otherwise have caused dense curds. While gelatin may not under extreme conditions entirely prevent coagulation, it can always greatly modify the consistency of the flocks. In other words, gelatin modifies cow's milk to the extent that its reactions in the stomach are similar to those of mother's milk.

The use of edible gelatin as a "curd splitter" in milk for infants is not a new procedure, as Dr. A. Jacobi, a world famous physician and past president of the American Medical Association, recommended it over 40 years ago. In published papers, he repeatedly said that gelatin improved the nutritive value of milk, as it prevented the formation of dense curds and also had a nutritive value in itself; and further, that milk food was better absorbed where gelatin was present, as less stercus was discharged.

The late Dr. C. A. Herter of Columbia University, found that the addition of gelatin to milk in serious cases of malnutrition in children was of great benefit. In a book entitled "Infantilism from Chronic Intestinal Infection," he described a case of arrested de-

velopment consequent upon a non-absorption of food and its subsequent putrefaction in the lower intestine. The child excreted all the calcium ingested, this accounting for the failure of skeletal growth, and the feces contained neutral fat, fatty acids and soaps in marked excess, indicating impaired fat absorption. When gelatin was fed in abundance, these conditions were alleviated and the patient began a slow recovery with gain in weight. Herter found that two types of bacteria, *B. bifidus* and *B. infantilis,* were associated with infantilism and that they disappeared from the intestinal flora when gelatin was ingested freely. That is, these bacteria were unable to grow in a gelatin medium.

In connection with the subject of putrefactive bacteria in the intestines, it is interesting to note that gelatin does not contain those amino acids that give rise to appreciable quantities of indole, skatole and phenolic bodies. These end-products of the bacterial putrefaction of proteins containing tyrosine and tryptophane may cause serious disturbances.

In recent feeding experiments with the albino rat, the writer has substantiated numerous statements in the literature that gelatin increases the nutritive value of milk. In these experiments, young animals were fed on whole cow's milk containing 1 per cent of edible gelatin, while other young rats (from the same litter) were fed on whole cow's milk alone. The animals were weighed each week; also a record of their food consumption was kept. The animals whose ration contained gelatin grew at a more rapid rate on a much smaller food consumption than the corresponding animals fed on whole milk alone. That is, for equivalent gains in weight, 23 per cent less whole milk was required where 1 per cent of gelatin was included in the milk food. Moreover, the ingested gelatin has favorably influenced the reproductive ratio of these animals. The animals fed on whole milk alone reproduced at irregular intervals and showed little indication of lactation; the young always died within two days after birth.

The writer has also found that such an excellent food combination as milk and eggs (1 egg per quart of milk) is increased in nutritive value by the inclusion of 1 per cent of edible gelatin. The experimental animals fed on gelatin, milk and egg attained greater weight increases on smaller food consumptions (wet basis), reproduced more frequently, and raised a greater number and superior young than those animals fed on milk and egg. Doubtless gelatin functioned so efficiently in these rations through two effects: its own food value, by supplying certain amino acids; and its protective colloid and emulstatic action, which rendered the foods easier of digestion and more complete of absorption.

There can be no doubt that edible gelatin with milk gives a superior food combination. Clinical experience has demonstrated that cow's milk, modified with this protective colloid and protein food, is especially desirable for infants. In recent coöperative work with baby clinics, the writer has observed a number of remarkable recoveries of infants, where 1 per cent of edible gelatin was added to the ordinary modified milk formulas, upon which they were failing. According to Dr. G. P. Griffith, of the Hospital of the University of Pennsylvania, the late Dr. G. F. Weigs found that combinations of gelatin with milk and cream agreed with many sick children when other foods failed. For normal growing children gelatin des-

serts have long met with medical endorsement. While for adults with deranged digestion, it is obvious that gelatin with milk products are decidedly advantageous food combinations. Certain investigators are of the opinion, and rightly so, that normal adults need with their foods the association of protective colloids and emulstatic agents, such as gelatin, in order that they may obtain a more efficient digestion and absorption of nutrients.

Medical Uses for Edible Gelatin

The ingestion of gelatin gives rise to physiological effects that are decidedly beneficial in certain disorders of the gastro-intestinal tract. Gelatin possesses the unique property of acting as a buffer substance; that is, it corrects excess acidity or alkalinity within certain limits. As an illustration of the applicability of this buffer action, gelatin has been used successfully for patients afflicted with hyperacidity of the stomach. The excess acid is fixed, *i. e.,* rendered non-active, by gelatin, yet a small amount of active acid remains to function in normal gastric digestion. The advantages of such a fixation over the ordinary neutralization with sodium bicarbonate are at once apparent.

Gelatin is a peptogenic substance, *i. e.,* a food which promotes the flow of gastric juice. Fats, for example, inhibit the secretion of gastric juice, and this probably accounts for the delayed passage of fats and fatty foods through the stomach.

Due to its hemostatic action, gelatin has been recommended as a blood coagulator (ingested as a food) for cases of gastric and intestinal hemorrhages. Dr. Ono, a Japanese physician, says that gelatin has been used as a hemostatic agent in China and Japan from prehistoric times, while such use for gelatin has been recognized by Europeans only since 1838.

For various kinds of hemorrhages, subcutaneous injections of gelatin have proved very effective. For such purposes the gelatin solutions must of course be sterilized.

Dr. Ernst Homberger is authority for the statement that gelatin appears to be the best remedy for arterial calcification, since it protects the walls of vessels from calcification through an increased metabolism. He suggests that, in infectious diseases, not only the protein bodies, but also gelatin, can be used intravenously and subcutaneously as a non-specific method of treatment.

Pediatrists have found that the ingestion of edible gelatin is highly beneficial for infantile diarrhea. The use of gelatin for chronic intestinal infections has been mentioned *supra* in connection with the résumé of the work of Dr. C. A. Herter.

Incidentally, gelatin is one of the best antidotes for bromine, iodine and alum poisoning.

In pharmacy, gelatin is extensively used for capsules, pill coatings, general emulsifying agent, protective colloid for medical preparations (*e. g.,* colloidal metals), clarification of extracts and detannating certain medicated wines. Glycerinated gelatin is used for court plaster, discs, bougies and suppositories, as an ointment base, and as an ingredient of lozenges and vehicle for external remedies. Formaldehyde gelatin finds applications as "glutoid" (a special capsule material and pill coating), special surgical dressings, and "glutol" and other vulneraries and "glycoformal" is used as a disinfectant.

Use of Edible Gelatin in Special Dietaries

As a protein-saver, carrier of more concentrated foods and as an aid to digestion, the use of edible gelatin has met with high medical endorsement for fever, tuberculosis and diabetic patients. The facts that have been developed in this paper show clearly that the use of edible gelatin in infant feeding and malnutrition of children demands the serious consideration of the medical profession. For general convalescents and invalids, gelatin as such, and the partially digested protein, gelatin peptone, are desirable adjuncts to the regular diets. For dysphagic conditions gelatin jellies afford ready means for the ingestion of foods with minimum pain to the patient. As a dessert in training diets the use of gelatin has been commended.

From the preceding discussion of the nutritive value and physiological effects of edible gelatin, the advantages that are derived from its inclusion in dietaries are readily apparent. Aside from these highly desired food properties, gelatin gives to the cuisine a substance which offers rare opportunities for the preparation of dishes that fascinate the eye and intrigue the palate. The desirability of attractive appearance in foods for the sick is often overlooked; and yet this factor decides many times whether the patient will have an abnormal repulsion or a normal desire for sustenance.

Edible gelatin is a product peculiarly fitted for hospital dietaries: it has nutritive value as a protein food, it is easily digested and absorbed, it is an efficient supplementary protein for a number of protein foods, it aids in the digestion and absorption of other foods by its protective colloid and emulstatic action, it produces useful physiological effects, and, in addition to these benefits, it is without equal as a basis for the preparation of foods which are attractive in appearance and pleasing to the taste.

T. B. DOWNEY.

May 18, 1923.

A NEW BEVERAGE

Cassina is a plant which grows wild in great abundance along the South Atlantic and Gulf coast.

According to Walton, the botanical name is "Ilex Cassene" and according to Alton, "Ilex Vomitoria". The common names are, Cassina, Christmas Berry Tree and Yaupon.

The leaves of the Cassina plant have been used from time immemorial by the Indians. In South America another species of "Ilex" the "Paraquavensis" is commonly called Yerbe Mate. The leaves are used to a very large extent commercially, 140,000,000 lbs. per annum being used in Argentina alone. This product comes principally from Brazil and Paraguay and is in general use in most South American countries.

The crudely cured leaves were used by the Confederate Army and by southern families when tea and coffee became unavailable.

Cassina leaves contain caffeine the same as tea and coffee, the percentage being 1.65% as against 1.8% in coffee and 3.5% in tea.

After conducting laboratory experiments during 1921 in the scientific curing of Cassina leaves the Bureau of Chemistry established, in connection with Mr. Alfred Jonaunet, a commercial factory at Mt. Pleasant, South Carolina.

About 5,000 lbs. of Cassina, namely Green Cassina, Black Cassina, and Cassina Mate were pro-

(Continued on page 70)

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(Continued on page 70)

DISCUSSION ON HOSPITAL PUBLICITY STARTED IN NEW YORK

Following a recent article in The Hospital Buyer on the subject of publicity in the hospitals a long fight in the Kings County Medical Society has been renewed. It is a fight between the ultra-conservative element in the society, and the more progressive members. The former would suppress from the press all matters concerning the hospital. The latter would make public all information of an educational character which would prove of valuable help to the public. Among the latter champions of progressiveness is United States Senator Royal S. Copeland, former Health Commissioner of New York City, who believes in giving information to the press. He thinks that much good can be accomplished by it. He, while commissioner, conducted a health column in a daily newspaper and remarked the other day that many medical men criticized him for doing it, while many commended him.

The conservatives and the liberals in the Kings County Medical Society are going to fight out this question of publicity for the hospitals to a finish, it is announced, although the issue will not be finally determined until the fall meeting of the society.

The tendency in most New York hospitals is to give information to the press when asked for, and frequently unsolicited, on any subjects of interest to the public, and where there are no ethical questions involved. They do not seek publicity for the sake of advertisement or sensation but to be of service in an informative or educational way.

DAIRY PRODUCTS VALUES DROPPED LAST YEAR

Dairy products in 1922, at farm prices, had a gross value of $2,090,455,000, according to estimates by the United States Department of Agriculture. The value of dairy products in 1921 was placed at $2,352,000,000, and in 1920, the top year in values, at $3,018,000,000.

Whole milk sales from farms and consumption on farms comprised 65 per cent of the total value of all dairy products in 1922 and are given a value of $1,357,000,000. In 1921 the value of such whole milk was placed at $1,567,000,000, and in 1920 at $1,911,000,000.

Farm made butter had a value of $220,000,000 in 1922, compared with $242,000,000 in 1921 and with $366,000,000 in 1920.

The 1922 value of cheese made, cream sold, butterfat sold, buttermilk, whey, and skimmilk, is placed at $513,018,000, compared with $542,817,000 in 1921 and with $740,736,000 in 1920.

The farm price of whole milk was 19.09 cents per gallon in 1922, compared with 22.19 cents in 1921, and with 30.10 in 1920.

HOSPITAL SUPERINTENDENT

The Hospital Buyer has a letter from a lady (R. N.) who has had twelve years experience in hospital work, and who has made an intensive study of hospital management. She wishes to get in touch with a hospital under 100 beds, either now running or new, which needs the services of a superintendent.

THE HOSPITAL BUYER will be glad to put any such hospital needing the services of a superintendent in touch with this lady.

Composition Flooring

By W. J. O'NEILL

Secretary and Treasurer Composition and Mastic Flooring Association

THE so-called composition flooring made of magnesite, chloride and fillers is a development of the discovery of the French chemist, Sorel, that calcined magnesite and magnesium chloride reacted and formed a stony substance of great tensile strength.

All the composition flooring of commerce is composed of caustic magnesite $50.00 per ton and magnesium chloride $40.00. Some of the following incredients—wood flour, $25.00; asbestos fibre, $50.00; silex, $60.00; sand $1.50; talc, $20.00; marble dust, $10.00; silica, $1.00; cork dust, $30.00; sawdust, $2.00 and coloring pigment of various kinds and prices.

A formula is determined consisting of various quantities of the above materials, each manufacturer having his own formula composed of all or some of the above materials. These are thoroughly mixed in a dry form and delivered in bags to the job. Before applying, the dry mixture is made into a mortar with magnesium chloride diluted to a strength of 22° Baume, and the manner of applying the mortar to the floor is much the same as in cement work except that composition floors are seldom laid more than ½ inch thick.

Raw materials used in composition flooring vary so much in price and usefulness that floors may be made to cost the manufacturer, for materials only, anywhere from five to twenty-five cents per square foot. The more of the cheaper materials used, the less the floor costs, and, as all samples look alike, there is a great temptation to buy on price without considering quality and durability.

The standard specifications of the U. S. Government for composition flooring is as follows:

	Per Cent
Caustic Magnesia	45
Wood Flour	10
Asbestos Fibre	5
Silex	25
Talc	5
Color	10

Mix to a mortar with chloride of magnesia at 22° Baume.

To produce a good and lasting composition floor, not only must the materials be of the right kind, but mechanics trained in the right handling of this material must be used. It is wise not to have work installed unless the skill of the mechanics has been verified as bad results will surely follow. Good material plus experienced labor makes composition the cheapest flooring that can be bought.

Advantages

Durability — With reasonable care lasts as long as the building. Installations made years ago in public buildings show little abrasion and prove that composition flooring has extraordinary wearing qualities.

Sanitary — Seamless, dustless, easy to clean.

Noiseless—The cushion coat and the fibrous nature of magnesite floor make it an almost noiseless flooring. It is not cold, odorous, or slippery, and does not crack, come loose or crumble and is a fine covering for wood or concrete floors, old or new.

Colors

Composition floors are made in red, buff, grey, slate, brown, black. In addition, borders, base, wainscot, may be had in white, green and maroon. Colors may be combined so as produce straight line designs with borders, base and

wainscot of different colors to floor.

Costs

Composition flooring can be installed in large areas as low as 25 cents per square foot for labor and material.

Repairs

As composition flooring is laid in plastic form, repairs or alterations are easily made and at small cost.

Uses

Hundreds of installations have been made in schools, hospitals, public and private buildings of all kinds, offices, factories, stores, banks, apartments, and wherever a sanitary, durable, attractive floor is required.

Method of Laying Composition Floors

First Operation: Over Wood Foundation: Galvanized wire netting should be stretched over the entire surface to be covered and securely nailed thereto with galvanized roofing nails not more than six inches apart.

Second Operation: A scratch or cushion coat ¼" thick and thicker where low spots occur, should be placed upon the foundation flooring, trowelled well into place and brought to a level, but not a smooth surface and allowed to set over night.

Third Operation: A top or finish coat of the color desired is then laid upon the cushion coat and trowelled into place; flat trowelled at least two times, and at the proper time before the final set, should be trowelled with the edge of the trowel and brought to a true and level surface in the best manner.

Fourth Operation: Not more than 24 hours should intervene between the third and fourth operation, which shall consist of washing the floors with clear water and steel wool, leaving the floor with an even texture. When the floor is thoroughly dried a coat of oil finish is poured upon it, using approximately two gallons per thousand feet. This oil application should be allowed to remain soaking into the floor for at least six hours, when all surplus oil should be carefully removed, leaving the floor of an even texture and color.

Fifth Operation: Provision should be made for washing and oiling all floors one month after acceptance of the work, this fifth operation being a further precaution against minute voids in the floors which may not have been filled while trowelling or in the first oiling, and as a method of teaching its owners, janitors or cleaners how to properly and economically clean and care for such floors. This fifth operation is a free service and it is understood the owner, or his cleaners, will help while the work is being performed.

Concrete Foundations

Where floors are laid over concrete the foundation should be not less than 3 inches thick and the mixture a 1-3-5 or better brought to a reasonably level surface ½ inch below the desired finished floor, grouted and floated while the concrete is green. When this concrete has become bone dry floors can be placed upon this foundation in the following manner:

First Operation: The concrete surface shall be carefully cleaned and covered with a grout coating of composition grouting and the cushion coat shall be placed upon this grouting as described in second operation for laying composition floors over wood foundations.

Third, fourth and fifth operations will be identical with the third, fourth and fifth operations for laying floor on wood foundations.

(Continued on page 80)

The Advantages of Prepared Paint

By FREDERICK ARNOLD FARRAR

IN our last issue we told the Hospital buyer something of the manufacture of paints, and in this, the second installment of the series, we will tell of the advantages of a ready mixed paint, a paint that comes ready to use, which is a distinct advantage to the Hospital painter.

The very life and protective qualities of a paint coat depend upon the proper combination of vehicles and pigments. For best results these must be scientifically mixed, by being ground and reground in especially prepared mills, which of course are out of the reach of the average painter.

No paint will do its work properly, do what it is bought for and paid to do, unless it is made right, from the right ingredients, each selected for its special fitness to do a certain thing 100 percent.

Where this perfect saturation of the pigments with the oils is not accomplished, the little particles of pigment are only coated on the outside with oil, and where a mixture of this sort is applied the absorption of oil by the surface, together with the atmospheric action on the outer surface, tends to destroy or rob the pigment of its life or binding properties. For proper protection, the paint must STAY on the surface.

Thorough and Scientific Mixing Necessary

In a nutshell, best results cannot always be secured with the hand mixed goods of random combinations of irregular ingredients. Batches will never be twice alike—the painter's time is worth money, and considering this, the cost of the raw materials and the unreliable and varying results, nothing can be saved by mixing one's own goods. Use any one of the standard brands of ready mixed paint and avoid expensive experiments.

There is an impression among certain people that ready-mixed paint is not as good as one can mix himself, but this is far from the truth. Of course, even among ready-to-use goods, one will occasionally encounter that which lacks quality, but it is possible to secure prepared paints that far exceed anything that is mixed by hand, and it costs much more per gallon, of equally good material, if you try to mix it yourself.

The Disadvantages of Hand Mixing

Suppose a painter starts out something like this. He prepares his base and thins it with oil until he thinks that it is about right. He no sooner has this done than he finds that he has made it too thin. He then adds more base pigment, for instance, lead we will say, adding enough to make it of the right consistency for proper application. He now finds that it is too thick, so in goes some more oil—it is now too thin again. A little more lead would be about right, he thinks, and so the process proceeds. He now finds that he has perhaps added too much color—the mix is too dark, more material is added, and it is now too light, or possibly not exactly the shade desired. This procedure is very costly in both time and money, to say nothing of the inconvenience occasioned, and in most cases more material is mixed than is actually needed for the job on hand.

The average buyers of paints for the Hospital know, I believe, very little about the proper mixing of colors, but are always safe in specifying any one of the standard brands of material desired. Painters, in fact, who have handled the

brush for years, fail in the matter of a proper understanding of paint preparation. This is perhaps because they have always worked for a "boss" and lacked the opportunity to master the situation themselves.

One painter said that he could, by looking at a color, tell about what pigments were used in it, but that he had no proper knowledge of how to use them himself in the correct proportions. A well advertised brand eliminates all guesswork.

Consult the Card

Most elaborate and complete color cards are furnished by the manufacturers of all standard grade paints; each color chip bears a number, and the shades are always identical with the goods in the can. Make your selection and your road to successful work is easy and assured.

Of course, formulas may be furnished for mixing colors, but a mere formula is not always sufficient, where the mixer is not an expert. Moss green, for instance, is made from prussian blue, raw umber, white and medium chrome yellow. Now, in order to secure this moss green shade, which enjoys wide popularity, one must know, first, what the true moss green shade is, and after this, he must have an accurate knowledge of the exact proportions of the specified colors employed to produce this shade.

It is like the old fellow who was selling a certain patent liquid, and a would-be competitor came along and told him that *he* was going to make a duplicate mix and secure his trade, that all it was, was smart weed and water. "Yes," replied the first, "but you do not know how much smart weed and how much water I use."

The Advantage of Prepared Paint

A painter or the buyer of paints for a Hospital may know what certain shades of gray or tan is desired and yet be absolutely unable to tell what the component parts of that particular shade are. There are so many ingredients in paints that one may waste his time and money by undertaking to produce such colors by the hand mixing process.

Ready for Immediate Application

Standard grade ready-to-use goods come ready for immediate application, as soon as the can is open, no thickening or thinning is, as a rule, required. It is not necessary to strain the paint, for it will be found free from all grit and specks and will flow freely from the can or brush. Color cards from the standard paint manufacturers show all the popular shades and, if an order is of sufficient size, any paint maker will supply special shades, if ordered say, in five gallon lots, or over.

The text matter of these color card circulars give much interesting and helpful information regarding the proper paints for certain buildings, what to use on walls, woodwork, floors, roofs, etc. They also give attractive color combinations, suggest effective trimming colors and so on.

You will see that all this has a decided advantage over the hand mixed proposition, which must require a good sized room fitted up for the purpose, wherein may be found stocks of materials, oils, pigments, brushes, etc., etc.

How much easier it is to select your colors and have them come in ready to proceed at once with the job in hand, with no loss of time and with the assurance that the work when finished will be entirely satisfactory. It also eliminates the necessity of "shop"

(Continued on page 84)

Tea From the Leaf to the Cup

By T. L. DRIMMIE

The writer of this article is indebted to The J. C. Whitney Co., Chicago, Tea importers and exporters, for their kind co-operation in the preparation of this article and for the illustrations used.

ALL the tea of commerce comes from one species of plant. Tea is known by different names, depending upon the country in which it is grown; upon the position of the leaf on the twig, and, upon the treatment of the leaf after picking.

There are only two main varieties of tea, fermented or Black, and, unfermented or Green Tea, although there are many varieties of each of these groups.

Japan produces only unfermented (green) tea.

China produces both fermented (black) and unfermented (green) tea.

Formosa produces a semi-fermented (black) tea.

Ceylon, India and Java produce very largely fermented (black) tea, but Ceylon and India also produce a small percentage of unfermented.

Compared to some other countries, the United States is a small

The same leaf or part of the tea twig bears different names in China, India, Java and Ceylon. The photograph reproduced shows where the different kinds are obtained. The lettering above each leaf indicates the name used in India, Java and Ceylon; that below the leaf indicates the Chinese name

consumer of tea as the following table shows:

Australia uses from 8½ to 9 pounds per capita, yearly.
England uses from 6½ to 7 pounds per capita, yearly.
Canada uses 5 pounds per capita, yearly.
Russia uses 2½ pounds per capita, yearly.
United States uses not quite 1 pound per capita, yearly.

The Black teas are used mostly in England, Australia and Russia, and the Green teas in the United States, to a larger extent than the Black, and, to some extent, in Canada.

The Tea shrub grows best in mountainous places and the finest teas come from the highest elevations. The soil required is a light loam well mixed with sand and vegetable matter, moderately moist and yet not stagnant or sour.

Although Tea was first produced in China, and for many years all the tea used was grown there, at the present time the table of exportation is as follow:

	Pounds
India	about 300,000,000
China	about 50,000,000
Ceylon	about 170,000,000
Java	about 80,000,000
Japan	about 30,000,000
Formosa	about 12,000,000

In China, Japan and Formosa the cultivation of tea cannot be carried on to such a state of perfection as in Ceylon, India, and Java because the soil is not so rich and because farming is in a cruder state.

In India and Ceylon the handling of the estates is in the hands of trained tea specialists who have in their employ chemists who are continually analyzing the soil and bringing the productive quantities of the land to the highest point.

Climatic conditions enter largely into the quantity of tea produced in a years time.

The seasons in China and Japan are the shortest of any, owing to absence of moisture in the atmosphere except in the rainy seasons. Formosa has more moisture, but cold weather causes the vegetation to die.

In Ceylon and Java, owing to a continuous precipitation of moisture, either in the form of rain or heavy dews, and the absence of cold weather, vegetation is continually growing and teas can be picked all the year around but the bushes have to be pruned back and rested every fourth year as an equivalent of the rest which winter gives the tea plants in the more northern tea growing countries.

Fermented (Black) and Unfermented (Green) Teas

In the case of fermented teas the natural sap is permitted to remain in the leaf for a certain lenght of time after it is picked. The leaves are spread on withering trays for this purpose. This sap moisture is of such a nature that it works a chemical change in the leaf until the organic nature of the leaf is actually changed into an entirely new substance. It is exactly the same thing which takes place in the handling of hops for the manufacture of beer.

In making unfermented or green tea the leaf is carried at once from the tea field to a room where heat can be applied to it; the pores of the leaf are closed by the heat. This prevents the tea from fermenting and holds the elements produced by the soil.

In making fermented or black tea (which comes largely from Ceylon, India, Java and China) the leaf is permitted to ferment for a given period of time and then fired so as to hold it in that condition; the fermentation being stopped by the firing.

In Formosa and the Southern Provinces of China where Oolong teas are produced the leaf is semi-fermented, that is, the process of exposure to the air before firing is not carried so far as in the case of the Black teas.

The color of the infusion of tea is no indication of its strength. The color comes purely from the method of preparation of the leaf. In many instances the thin looking cup of tea made from green tea may have elements in it much more powerful than those in the cup made from black tea which looks so much darker and stronger.

Harvesting the leaf is practically the same in all countries. In its main essentials the firing process is the same, simply being the application of a certain degree of heat, whether done in a wicker basket or pan over a charcoal fire or by the modern machinery of Ceylon and India.

The cut Fig. 1 shows how a few of the grades of tea are obtained.

Grading Tea

After the leaves have been withered and fired they are separated into the grades that come to the market. In Japan one sieve climinates dust, siftings, stems and the nibs of the leaf. By sifting, the leaves are divided into various degrees of fineness and coarseness and after the entire batch is sifted out certain sizes of leaf are put back together to form the grades that are offered on the market.

This is the first of Four articles on Tea. The second and third will deal with the teas of the different producing countries and the fourth with a report of chemical tests of tea, of great interest, just recently completed.

The Hospital Buyer welcomes constructive criticism from its readers. Write us your ideas of how we can improve it.

SOUTHERN HOSPITAL NOTES

By THE HOSPITAL BUYER
Correspondent

The charter revision committee of the Atlanta, Ga., city council today reported favorably on an ordinance providing for a pay ward at the Grady hospital.

At present the hospital is being run solely as a charitable institution, but city officials feel that there are many who could afford to pay for services rendered there, and that a pay ward would go a long ways toward meeting the operating expenses of the building. It is estimated that a pay ward would bring the hospital an annual income of approximately $15,000 in fees.

Before the new ordinance can be put into effect, it will have to be approved by the state legislatuer, a charter amendment being necessary to give the city the right to admit pay patients.

Increased maintenance funds, and funds to establish and support special clinics in the leading cities of the state are being asked for by the Georgia State Hospital for the Insane at Milledgeville, Ga., this year.

The hospital already operates one clinic at Macon, Ga., which is doing very good work among patients discharged from the hospital as partially restored.

According to Dr. Swint, superintendent of the institution, the hospital discharged 499 patients as cured during 1922, and has cured 180 patients since January 1, 1923. Only a small percentage of these have to be returned to the hospital, and this would be materially reduced, Dr. Swint says, if the state would establish clinics and keep in touch with discharged patients for at least a few months after they have been given their freedom.

DETECTION OF SPOILED CANNED GOODS

The process of preserving food in an approximately freshly-cooked condition in tins and glass is now so well understood that spoilage is relatively rare. Only occasionally do we hear of sickness caused by the eating of canned food. Even these occasional cases may be almost entirely eliminated if all goods bought were vigorously inspected and every jar or can which showed the least suspicious indication rejected.

The outward appearance of the container frequently shows what has been going on inside. If there are any abnormal symptoms it should be discarded without exception. Both ends of a tin should be flat or curved slightly inward; neither end should bulge, snap back when pressed, or feel loose; all seams should be tight and clean with no trace of leak. On glass jars, the cover should be firm, flat or concave, with the seam, collar-band and labels clean and free from all sign of leak. The contents should appear free from mold, disintegration, cloudiness, or any other abnormality and show no discoloration. Accept only cans and jars in first class condition.

Vigilance should not be relaxed after an examination of the exterior. Anything wrong with the contents will often be disclosed when the can is opened, even if the outward appearance did not indicate it. A suction inward when the top is loosened or perforatetd is highly desirable as an indication that the food is in a good condition. No out-rush of gas or liquid should occur. The odor, observed at once, should be characteristic of the product; there should be no trace of foreign or objectionable odor, no mold or other abnormal appearance. Liquid enough to cover the food is desirable in most products. The inside of the can should be clean and bright, or well lacquered, not extensively blackened or corroded.

If the food shows any sign of being spoiled destroy it at once. If after a thorough examination you are still uncertain as to the contents being in a good condition, add half the volume of warm water and boil thoroughly.—*The Food Server.*

SOME LITTLE KNOWN USES FOR LEMONS

Lemon juice with salt will clean and brighten brass.

A drop or two added to the water in the dishpan cuts greese.

The strained juice added to a wash boiler of white clothes whitens better than any patent whitener, without injury to the clothes.

It is one of the best skin lotions known, being at once a stain remover, bleaching agent and skin softener.

A slice of lemon rubbed on the nails softens and removes cuticle. Rubbed vigorously it polishes and cleans the nails. Rubbed under the nails it removes stains not reachable by soap and water.

Lemon juice and glycerine in equal portions make one of the best known hand lotions.

Five lemons cut in slices, then soaked in a basin of water for half an hour, and added to a bath tub of water, make a bath which gives the skin a satin softness if used regularly.

The juice of one or two lemons in a basin of water, used twice daily, does much to remove tan and freckles; takes away the shiny look and leaves a delightful, refreshed feeling in the skin.

Market Review

By EDMUND L. DRACH

LITTLE change has taken place in the drug and chemical market the past thirty days and prices hold steady. Business is good and volume better than a year ago. Buying continues to be of a routine character, consumers apparently fairly well supplied for the bulk of their requirements. Few items of speculative nature dominate the market but the lack of any brisk demand for commodities in general indicates only small business in the spot market while the bulk being done by first hands. Some items like Carbolic Acid, Mercury, Glycerine, Potassium Permanganate are sluggish and have some effect to depress values. Competition is keen and probably due to over production and where stocks are burdensome there is the inclination to cut prices where actual volume business is certain.

Carbolic Acid (Phenol) has receded considerably and spot goods have been offered at considerably reduced prices. One large manufacturer is now selling synthetic Phenol although their production is sold ahead. Increased production is fairly certain and this should relieve shortage of some time back, tending to lower prices. Continue to restrict purchases in anticipation of more favorable market in the near future.

Cresylic Acid and Cresol should tend lower in sympathy with Carbolic Acid. Tariff investigation aiming to lower duty will if accomplished see lower prices on this group.

Citric Acid manufacturers have not changed their price schedule while imported material sells at a three to four cent per pound premium. A good buy at present level for needs over the summer months.

Tartaric Acid, while manufacturers have not reduced price, imported material is being offered at lower figures primarily due to lack of demand.

Oxalic Acid weak and in some channels reported very dull. Prevailing price attractive.

Denatured Alcohol, demand does not appear to slacken and production being well taken care of, lower prices are quite unlikely. Observe market tendency closely and if demand continues, higher prices may be expected.

Wood Alcohol holds steady. If any, reduction in price will not be material and quite likely only of short duration.

Acetphenetidin, demand fair. Price should continue at the present level.

Acetanilid, the reduction of last month still maintained. Further reduction could occur.

Acetone, continued demand easily consumes production, therefore price firmly maintained. Market is high and only increased production will help to bring about lower market.

Agar Agar, market appears weak primarily because of continued high price. If any increase in supplies, lower prices should materialize.

Bismuth Metal reported very firm and only offered sparingly in primary market. Bismuth Salts while unchanged are likely to go higher. Anticipate needs.

Bromides, demand not heavy although prices are maintained. Imported Ammonium and Potassium recently offered at lower prices.

Caffeine demand continues light. Some concessionary prices reported. Shopping of appreciable quantity should benefit lower price than existing schedule.

Camphor continues to go along unmolested. Market reports are conflicting, first indicating strength and later, price concessions. This indicates a weakening condition.

Castor Oil, price continues high and demand remains brisk. There appears to be no tendency toward a lower market.

Chloroform, resale offered at lower prices. Manufacturers' schedule still unchanged. Look for lower prices.

Cod Liver Oil, a good steady demand exists and while occasionally it is reported prices are shaded only slightly, continued demand should uphold present prices.

Cocoa Butter has been easier the past month although a slight advance recorded recently. This we believe is only temporary. During the summer months there is little demand and the shading of prices is not impossible.

Ether, price has remained stationery for some time. Production costs are reported holding up strong due to sustained strength in raw materials. Demand is good and of routine character.

Formaldehyde, little change and the market holds fairly well.

Glycerine, competition is keen and with little demand price has sagged. Manufacturers booking contracts over the balance of the year. The item is not particularly attractive. Lower prices quite likely later in the summer.

Hexamethylene Tetramine, no particular demand exists and nothing of importance on this item has developed. American and imported material relatively in the same position.

Iodine, while reported firm is not a strong feature in the market.

Lanolin is of little importance. While price was higher last month, there has been a slight recession.

Menthol has acted peculiarly again, advancing to an extremely high level. Consumption should be restricted to the minimum. Speculators seem to control this item, directing its tendency at their will. Should be much lower. Price break apt to occur any time.

Mercury is easier and lack of buying indicates surplus stock in the spot market. Price abroad reported higher. Increased demand, although hardly expected for the present, may have its effect later in the season.

Mercurials, present prices have been of long standing. No need of buying more than immediate needs.

Opium is very strong and the market in all probability will again advance. Early last month the anticipated advance on derivatives materialized and it would not be surprising to see higher prices in the near but not immediate future.

Quinine seems to hold at the same level that has been in effect for some time past and demand remains fairly constant. We still feel that price should recede somewhat and do not recommend large stocks.

Salicylates unchanged. Phenol situation may have its effect on this list if competition forces dissatisfied manufacturers to a further reduction.

Silver Nitrate slightly lower. This item has a constant sidewise movement although changing only slightly.

Santoin remains stationary and the ruling price has been in effect for many months. Prices abroad reported higher and the raw material market is very high. We hope some day consumption will compel lower prices at least to a reasonable level.

Crude drugs, general business continues at a low ebb. There are quite a number selling at low prices yet this does not appear to induce speculative buying. Mandrake is perhaps the most interest-

(Continued on page 76)

A Hospital Library With Small Cost

By ELIZABETH GREEN
Former Librarian, Barnes Hospital, St. Louis, Mo.

IT may be of interest to hospital executives to know that it is possible and practicable to have a library for the use of patients, interns, nurses, and employees, with so small a cost that it is negligible. The library discussed in this article, does not include medical books, but concerns itself with reading matter, chiefly of an entertaining sort, for patients and those persons associated with the operation of a hospital.

The essential thing in starting such a library, is not money but interest. If you desire a hospital library and there is no money to put into such a project, arouse interest inside the hospital to run it, and outside the hospital to solicit books and provide volunteer library workers.

Such a library was organized at the Barnes Hospital, St. Louis, Mo., in 1915, and it has functioned actively and usefully since that time. The first step toward developing a library of this kind, is to find someone connected with the hospital who is willing to become librarian and supervise the work. It is not essential to have a trained librarian in charge of this sort of a hospital library. Of course for the hospital with a generous endowment, a trained and paid librarian is desirable, provided she is temperamentally fitted for hospital work.

Contrast the general aspect of contentment of patients in the hospitals where reading is going on and those where the patients lie listlessly with nothing to relieve the monotony of illness. Put yourself in the place of a patient and decide whether or not you would find reading a help during a period of illness, and then ask yourself, is the hospital library desirable? There is only one answer. The pleasure and relief from the tedium of illness that reading affords is a boon to the majority of patients.

Shortly after the opening of the Barnes Hospital, a recognized need for a library was appreciated. The budget did not admit of an appropriation for either a librarian's salary or for books. Investigation showed that seventy-five books could be borrowed from the traveling library department of the St. Louis Public Library, and the Record Keeper of the Barnes Hospital volunteered to become librarian. This made a start possible, and doctors, nurses, and employees as well as patients, promptly availed themselves of the opportunity of securing reading matter through the hospital library. A number of friends donated books from their libraries, and in an incredibly short time the library numbered several hundred volumes.

The problem of supplying books to patients confined to their beds without using the time of a paid employee was solved by establishing a corps of volunteer library workers. At the present time volunteers go to the wards twice a week with a truck for this purpose, filled with books. The truck is wheeled to the patient's bedside, thereby offering the choice of fifty or more titles.

This volunteer plan of distributing books to patients has been in effect for more than seven years, and during that time a distribution day has rarely been missed. This answers any question that may be raised as to whether a volunteer worker is faithful to her obligation. Of course care must

be taken to choose the right sort of volunteers. The person best fitted to hospital library work, is one who enjoys reading and has a sympathetic interest in the literary taste of all sorts and grades of people. To this must be added poise, tact, and good common sense. She must be able to appreciate that although her taste leads her to such authors as Robert Louis Stevenson or Hugh Walpole, most of her readers prefer Harold Bell Wright, Zane Grey, or Gene Stratton Porter, and that it is her privilege to see that they are provided with the stories they enjoy.

The number and kind of books in a hospital library differ somewhat according to the kind of hospital. The hospital where patients stay a long time needs a larger library including more non-fiction than the general hospital where a patient stays only a short time. It is safe to state however, that the larger part of a hospital library should be devoted to fiction Most sick people do not care to exert themselves mentally, and therefore the reading standard of a patient is a little below the normal.

The Presbyterian Hospital in Chicago has for years carried on a library for patients, under the direction of a ladies board. There are probably other hospitals where reading is being looked after in some simple and inexpensive way. Desirable as a trained librarian is, provided she is temperamentally adapted to hospital work, it is possible to give much pleasure to patients by adopting some simple workable plan such as the two already mentioned. People are delighted to give books to hospitals, and it is surprising what good ones are donated. Current novels so often bought and read but once, are gladly given to the hospital, if it is known they are desired. As books wear out they are replaced by other donations, so that loss from wear and tear or through contamination, is not important. The Barnes Hospital has spent no money on books, and at present all available book shelves are filled.

We know the library has been a benefit as well as a pleasure to the patients. We hope, since it has been demonstrated that a library is within the reach of practically every hospital, that more will be established, for surely the hospital of today believes in giving to its patients that which contributes to their happiness and contentment, as well as to their bodily welfare and relief. If a library is started modestly, there is no need to wait for an appropriation of funds. By all means make a start, no matter how simple, and give all patients who are able and desire to avail themselves of this resource, the chance of reading.

$10,000,000 GIFT BY JOHN D. ROCKEFELLER PROVIDES NEW BUILDING FOR THE UNIVERSITY OF CHICAGO

Among the new buildings at the University of Chicago for which funds already have been raised, according to President Judson, are the Albert Merritt Billings hospital, the Epstein dispensary, and the S. W. Rawson laboratory. Provision also has been made for the erection of a new home for the divinity school and for Bond Memorial chapel, as well as the university chapel with the recent gift of $10,000,000 which John D. Rockefeller made to the institution.

LET'S ALL GO
Milwaukee, October 22

Laundry Practice

By ALICE L. WAKEFIELD
In the National Laundry Journal

Note.—Miss Wakefield is an Industrial Fellow of the Mellon Institute of Industrial Research of the University of Pittsburgh.

HOW many people realize that the commercial laundry has a formula that it follows religiously in its efforts to produce uniformly good results? It has. In fact, it has a number of them, each one of which is designed for a particular class of work—white goods of various degrees of contamination, colored goods, silk and wool, and even feather pillows, which have recently been added to the list of articles that the power laundry renovates.

There is, however, a general skeleton upon which these formulas are all built which runs as follows:

(1) Cold or lukewarm rinse.
(2) Hot suds.
(3) Rinse, to remove suds.
(4) Bleaching bath.
(5) Sour bath.
(6) Rince (to remove sour). Blueing may or may not be added to this bath.

The cold or lukewarm rinse has been found expedient because a goodly portion of all dirt is water-soluble, while quite often dirt is encountered that is soluble in cold or warm water, but is coagulated or fixed by considerable heat. Albumin (which occurs in egg white) is typical of this latter class. It will be readily conceded that raw egg white is more easily removed than is cooked egg white. It is advantageous that this water-soluable portion be removed before the real washing process is begun, for the further reason that it reduces the amount of soap necessary to thorough cleansing.

The hot suds is, however, the greatest cleansing factor of the formula and is often repeated with clean water and soap up to the third suds, depending upon the problem in renovation that is being handled. For such articles as can stand it (cotton and linen fabrics in white, and certain colors where dyes that are insoluble in a weakly alkaline solution have been used) it is customary that a small amount of "soda" be added to this soap bath.

The chemical advisor of the laundry industry has found that the addition of soda to soap solutions, in quantities so small that the strength of the fiber remains unaffected, will give a decided increase in the efficiency of the soap solution as a detergent. Silk and wool, however, are never subjected to treatment with soda in any concentration, because even though no loss of strength is observed, a yellow color develops, which is very undesirable. It is also necessary to consider the effect of soda on any dyed fabric that is to be laundered. If "bleeding" is apt to occur in an alkaline solution, only a pure neutral soap is used in the suds bath.

The next step of prime importance in the formula is the bleaching, which is done with a weak solution of javelle water. Many of the old-time operators, in an effort to save time, combined this step with the hot suds bath, by adding the javelle water at the same time they added the soap. But here, too, chemical control introduced a change for the better, by insisting that bleaching be done in clear water and that the soap be well rinsed out of the fabric before the bleaching process begins. Again judgment must be

(Continued on page 88)

STAIN REMOVERS

The C. Pharmacy writes: "Please inform me how to remove ink stains from clothing. Also tell me how to get rid of iodine stains."

An article on the removal of various stains appeared in the *Bulletin of Pharmacy* a couple of years ago. To quote:

"In Spots on Clothing.—Owing to the differences in the composition of writing inks, it is impossible to find agents which are equally effective in removing all ink spots.

"Each of the agents mentioned below is satisfactory with some types of ink.

"1. Absorbents: Corn-meal, salt, French chalk, fuller's earth, magnesia, talcum powder, etc. The application of such substances serves to remove any ink not absorbed by the fibers, and keeps the ink from spreading. For a large ink spot, apply one of these substances before trying other agents. When the dry absorbent fails to take up more ink, make it into a paste with water and continue the application.

"2. Use soap and water as in ordinary laundering. This is satisfactory for some types of school inks, which are unaffected by chemicals and can be removed only mechanically."

Ink spots on cloth are also said to yield to potassium permanganate solution, followed by sodium thiosulphate and citric acid. After treatment the cloth should be washed thoroughly.

A solution of oxalic acid is frequently employed for removing ink stains, as is also a mixture of one part of potassium binoxalate and two parts of potassium bitartrate. The method of applying is to first dampen the stained spot and then to rub in the mixed salts.

For stains caused by aniline inks a diluted solution of tartaric acid is said to be effective. For stains caused by indelible ink, soaking in a solution of common salt, followed by washing with diluted ammonia water, is recommended.

Iodine stains on clothing may be removed by immersing in a diluted solution of ammonia. A solution of sodium thiosulphate may also be used for the purpose.—*Bulletin of Pharmacy.*

VITAMINS

Have you heard the story of McCollum's calves? It reads like a fairy tale. In the year 1906, three groups of heifer calves were selected and placed on diets chemically equal: the fat, protein, and carbohydrate contents of the three were identical as were, consequently, the caloric values. One group was fed on corn, another on oats, and the third on wheat—the complete plant, stalk, leaves, and kernel being used in each case. The calves grew and thrived and only minor differences were noted until they were grown and produced young. The cows that had been fed on a wheat diet from babyhood produced calves that were born dead and weighed only 40 to 50 pounds, while a normal calf at birth weighs from 75 to 80 pounds. The oat-fed cows brought forth calves practically normal in weight, but these too were born dead. The corn-fed cows produced calves that were normal in weight and that were on their feet within a few hours. Considered from a casual point of view, these results would seem to indicate the superiority of corn above other cereals. The real point of advantage lay in the larger amount of green leaves and stalk in the corn diet, rather than in the grain itself.—*Moore, Nutrition of Mother and Child, J. B. Lippincott Company, 1923.*

Eastern Hospital Notes

By THE HOSPITAL BUYER Special Correspondent

The Brownsville and East New York Hospital, Rockaway avenue and East 38th street, East New York, Brooklyn, is seeking to raise $100,000 for the building of a new wing. This extension is to form a home and training school for nurses so that the hospital can avail itself of the services of the nurses trained according to its own ideas and technique of acquiring them from other hospitals where different ideas might prevail. The hospital is only two years old and is graduating its first class of interns. It is a distinct Russian-Jewish organization.

Plans for additional facilities have been prompted by the inadequacy at the Kings County Institution. In the demand by the Commissioner of Public Welfare for $10,000,000 to carry out a hospital building program in the city, each section would get as its share one small hospital building. The request for $10,000,000 is Commissioner Coler's answer to the presentment handed up by the Kings County Grand Jury which complained in strong terms of the wretched condition of Kings County and other public hospitals.

In the case of the Brownsville and East New York Hospital situated in a largely populated district patients are turned away daily for want of accommodation. Even with the addition of the new wing which would almost double the present facilities there the building would not be large enough to care for the needs of the local community.

The only city-owned institution in an area populated by almost 400,000 persons, is the Bradford street hospital. At its best this building is simply an emergency station. Nearly all cases are transferred to the Kings County Hospital, some miles away.

The new wing at the Brownsville and East New York Hospital would provide a children's sun ward, a large and completely equipped laboratory, an ice and power plant, and a nurses' school, recreation and training quarters. The staff of nurses will soon take over their new home, which is within a few hundred feet of the hospital building. With these rooms thrown open to patients; and when the new wing is completed, approximately 200 additional patients can be cared for.

With merchandise valued at more than $200,000 ready for sale, the United Israel-Zion Hospital opened sale during the week of June 11, on 10th avenue from 48th to 49th streets, Brooklyn. It continued until June 23.

Incorporations Refused

An application for the approval of a certificate of incorporation for the New York Theatrical Hospital has been denied by the Board of Commissioners of the New York State Board of Charities at a public hearing on incorporations of charitable organizations. The grounds for the denial were that the State was opposed to granting charters to organizations which aided only people from one class and also that the incorporators were not able to show evidence of sufficient money to carry on their plan.

The object stated in the application was "to establish and maintain in a hospital in New York City's theatrical profession only and to acquire the necessary real estate for such purposes. The contention of the promoters of the project was that if Boston, Chicago and other cities were able

to maintain hospitals for the theatrical profession there should also be one for the theatrical people in New York City.

It was brought out at the hearing that there are over 5,000 theatrical people in New York City who are forced to go to the Public Hospital Bellevue or some other hospital in case of illness. The organizers of the plan produced pledges to the amount of $6,500 that were contingent upon the raising of a sum of $250,000 for the hospital. A petition favoring the hospital was presented at the hearing signed by 3,500 well known people of the profession including some noted stars.

Another application turned down by the board was that for the Rockaway Convalescent Home of the Israel Ladies of Arverne, Inc., Long Island. It was disapproved on the ground that there was not sufficient evidence that proper management had been arranged.

The New York Throat, Nose and Lung Hospital was granted an extension of its charter to cover the treatment of all general medical and surgical cases. This hospital has been in existence for about 40 years, treating only special cases. The request for a change of the hospital's name to that of the New York General Hospital, was not granted because of the objection of Public Welfare Commissioner Bird S. Coler, who wishes that the name be reserved for a municipal hospital to be projected some time in the future.

The Community Eye and Ear Infirmary and the Relief Society for the Aged, both of Manhattan, had their applications returned until there was more evidence of sufficient capital backing the enterprises.

The Wyckoff Heights Hospital, Brooklyn, is planning to add a new wing to its building to meet the ever-increasing demands for patients for admission.

Elaborate exercises marked the laying of the cornerstone of the new Maternity Pavilion of the Methodist Episcopal Hospital at 7th avenue, and 6th street, Brooklyn, in which medical men took a prominent part.

United States Senator Royal S. Copeland, former Health Commissioner of New York City, described this hospital as one of the leading institutions in the State of New York. He impressed the need of pre-natal care for expectant mothers, saying the institution will perpetuate the lives of infants born here who, without its care would have died. In Brooklyn there are only 300 available beds for 20,000 women, including the public and private hospitals. The new wing will put at the disposal of mothers 100 or more beds. The hospital was founded in 1881.

FEVERISH FRUITS

Mr. and Mrs. Pole Evans, English Scientists, have discovered that citrous fruits, inoculated with the mouldy substance which forms on juices, contract a rise in temperature easily measured with a thermometer and resembling fever in an animal. The discovery may have an important bearing on the future raising of fruit.

Increase in Milk and Butter Consumption

Milk consumption increased 14% during the year 1921, increasing from 43 to 49 gallons. (1922 figures are not yet available.)

Butter consumption increased during the year 1921 from 14.7 lbs. to 16.1 lbs., approximately 10%.

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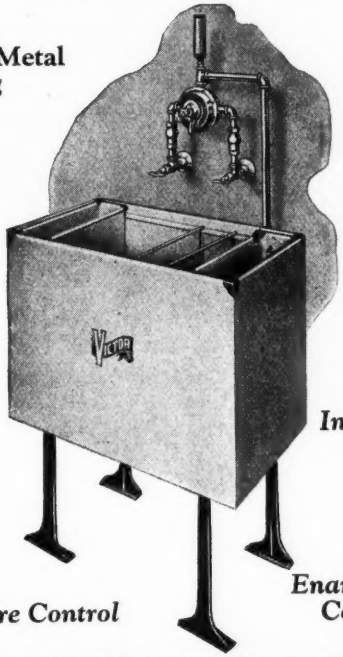

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Purchasing Information

The latest. H. G. Fischer & Co., 2333 Wabansia Ave., Chicago, announce a new piece of apparatus for utilizing the thermal or heating effects of electricity. It is an important addition to the physiotherapeutic equipment of the hospital.

The application of heat thus derived (diathermy) according to the degree used meets many requirements: for promoting the absorption of exudates and healing, which is accomplished by increasing the blood supply of the part; for destroying growths; for general sedation; for treating infectious skin diseases, etc.

This new Fischer outfit is compact and portable, along with its great capacity for work. Those interested are requested to use the coupon to be found in this issue, when writing for information.

X-Ray apparatus. Those who are now considering the purchase of apparatus for radiographic work should write the Acme X-Ray Company, 341-351 West Chicago Ave., Chicago, for description of the outfit which they manufacture.

It appears from the description and illustrations submitted, to be very complete and equal to every demand that is likely to be made upon it, in the largest of hospitals as well as the smaller ones. It has, so far as we can see, every desirable feature, every improvement suggested by experience in x-ray diagnosis during recent years.

Investigate this apparatus before buying, is our advice.

Necessary to the laundry. A great many hospitals now have laundries of their own and do all their own work. It has been found that the saving effected soon pays for the equipment.

A necessity in every laundry is a preparation for removing stains. For this the one known as the Eureka is excellent. It is made by the Eureka Products Co., 713 Lincoln Bank Bldg., Minneapolis.

The stains peculiar to hospitals, as of iodine, blood, etc., are quickly removed by it, as well as perspiration stains. It is said not to injure any washable fabric. It is, moreover, simple to apply and economical. To introduce, the manufacturers are quoting a special price for a trial lot. See our advertising pages.

Iodine and the general health. The body requires iodine, but frequently fails to receive in food the amount needed to maintain a condition of health. In young women the deficiency often results in goitrous growths, if the store of iodine in the thyroid gland (where it is collected and changed into an absorbable compound called thyroxin) falls below one-tenth of one percent. That little is vitally needed.

In dogs, a milligram of iodine suffices to prevent goitre in these animals. Small daily doses may be given and are being given, similarly, to prevent the growth in human beings. In view of the prevalence of goitre in many localities, this fact may well be broadcasted.

As a remedy, iodine is highly useful in such other disorders as glandular enlargements, uterine fibroids, arthritis, syphilis, etc. The best preparation by far is that known as Calcidin, put out by The Abbott Laboratories,

A Matter of Life or Death

FIVE REASONS WHY

MASSILLON

RUBBER GLOVES

Should Be in Every Hospital

1. They fit like silk.
2. They combine strength with lightness of touch.
3. They stand frequent sterilizations without deterioration.
4. They wear best—last longest.
5. They do not tear easily.

These points have all been proven to the satisfaction of thousands of surgeons and hospital buyers.

Order Massillon Gloves through your supply house—write to us direct for samples and the name of your nearest dealer

❖ ❖ ❖

THE MASSILLON RUBBER CO.

Massillon, Ohio

Chicago. It carries a large percentage of iodine (combined with calcium) which it gives up readily to the organism without upsetting the stomach or causing skin eruptions.

A good cocoa. Since cocoa serves frequently as a substitute for coffee when the latter does not agree, and since many would rather have it from choice, there is hardly a pantry without it. It is logically, from its nature, a food beverage of value in hospitals. When the drink is made from material of good quality such as Puritan Cocoa, and prepared with milk, it may be said to be truly nutritious. And whether prepared with milk or water, it has a supportive or tonic effect appreciated by convalescents and debilitated people in general.

Puritan Cocoa is highly recommended. A sample tin may be had on request sent to the Ideal Cocoa & Chocolate Co., 39-43 Park Place, New York City.

Training nurses. Wherever a training school is maintained for nurses, the method of Alice F. Bell may well be investigated. This method of teaching, which is the result of many years of specialized effort, is particularly suitable for institutions that must economize time.

It is highly regarded and carried out by many public health officials. State boards of health in various sections of the country endorse the method unreservedly.

It is available for use in the medium of printed forms, 19 in the series in which all the practical details of nursing are considered. The Physicians' Record Company, 509 South Dearborn St., Chicago, publishes it. A descriptive booklet and sample forms may be had on application.

X-Ray outfit. A compact outfit that meets the needs of the average hospital is made by the Wm. Meyer Co., 1650 Girard Street, Chicago.

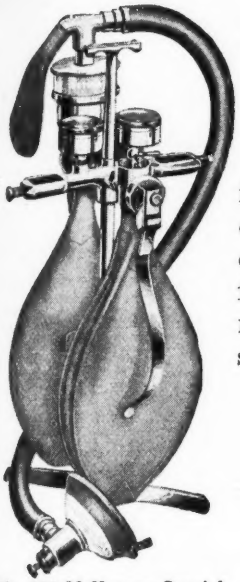
This is worth knowing, for the reason that much of the radiographic apparatus in the market is too elaborate and too costly for institutions having only occasional use for such apparatus at any rate not enough to warrant a large investment. The Meyer outfit, as just stated, will be found to suffice for all ordinary work. It comes in a good looking cabinet, with tube screen and other accessories.

Laundry machinery. Those of our readers who are now considering the purchase of laundry machinery will be interested to know that F. W. Mateer & Co. 226-232 West Ontario Street, Chicago, have equipped many of the leading hospitals in the country. And inquiry at these places without exception elicits the fact that the Mateer machine is doing all the work required of it in a way that admits of no complaints.

A catalogue describing its laundry machinery may be had by writing the firm at the address given.

Keeping informed. It may not be known by all of our readers that the American Medical Association publishes a group of journals devoted to special departments of medicine and interesting, namely, to the internist, the surgeon, the pediatrist, the neurologist and the specialist in skin and venereal diseases.

The list, with specific titles, will be found on one of our ad-



No. 306 McKesson Special

The McKesson Special

is the best means for relief of pain in obstetrics. Gas-oxygen is particularly fitted for this work. Your maternity department needs this service.

Write for information

Toledo Technical Appliance Co.

2226-36 Ashland Ave.
TOLEDO, OHIO

Announcing

The McKesson Surgical Pump

Shown for the first time at the A. M. A. Convention

A complete equipment for nose and throat and general operating room requirements. It will be available for delivery within a few weeks.

Write for information.

Toledo Techncial Appliance Company

2226-36 ASHLAND AVENUE
TOLEDO, OHIO

vertising pages. To be abreast of the times, to keep fully informed of the new developments in medicine, one certainly must read. There are many periodicals purporting to carry the same information, but is it not worth a great deal to get the ostensible facts from such a high and reliable source? We think so. A sample copy of any journal of this group may be had on application, accompanied by four cents in stamps.

Burns. The average hospital is charged with the care of burn cases. In industrial or manufacturing centers, and above all, in localities where iron and steel workers are employed, a great many such cases are treated in the course of the year.

This being so, it is certain that the readers of this publication will be interested in what is known as the wax-film method of handling burn cases, particulars concerning which may be had from The Abbott Laboratories, Chicago.

The method referred to involves the use of a paraffin-and-wax material which comes in half-pound cakes and is known as Parresine. No known application so quickly controls the pain. Moreover, it is clean to handle and in all respects satisfactory for emergency use.

Breakfast foods. A dish of cereal, with milk or cream and a sprinkling of sugar, has a fixed place in the breakfast of today. In hospitals, where one of the greatest concerns is to keep patients well nourished, it is an item which on no account is to be omitted.

Oatmeal is a favorite morning dish with many persons. It is at its best and most wholesome when made from Quaker Oats, which all wholesale grocers can supply. The same brand of Puffed Rice or Puffed Wheat affords two excellent cereal foods for a change or for those who prefer them exclusively. For many persons who are habitually constipated bran becomes desirable, not plain bran but as provided in Pettijohn's Breakfast Food. This also comes from the great Quaker Oats Company's mills.

A NEW BEVERAGE

(Continued from page 47)

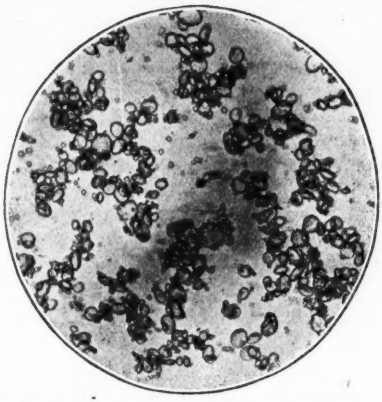
duced by different processes of manufacture.

Production was found to be cheap in comparison with commercial tea owing to the fact that as all the leaves of the plant contain caffeine they all can be removed from the pruned branches by live steam. Fewer processes are required than for tea and therefore only a small amount of hand labor is necessary.

After being cured by the processes worked out by the Bureau of Chemistry, Cassina leaves may be used to make a beverage served like tea or coffee. Formulas have also been prepared by the Water and Beverage Laboratory for excellent Cassina Syrup for use at soda fountains or for bottled carbonated beverages.

During the Charleston County Fair 1922 about thirty gallons of hot Cassina were served daily for fourteen days, as well as over 1,000 glasses of carbonated beverage made from Cassina which would seem to indicate it was popular.

What problems do you wish to see discussed in THE HOSPITAL BUYER*? Will you cooperate with us to make this journal more helpful?*



Food Cells Exploded

For Easy Digestion

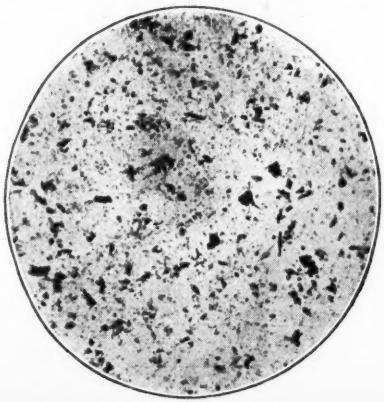
These are photographs of food cells in a grain of wheat, magnified 140 times. The upper picture shows them in the raw grain, the lower in Puffed Wheat.

Puffed Wheat and Puffed Rice are steam exploded grains. Over 125 million explosions are caused in every kernel. Thus the food cells are blasted for easy digestion, as these photographs show.

The grains are puffed to airy morsels, crisp and flavory, 8 times normal size. So these whole-grain foods are delightful.

You will find no other form of whole grains so enticing, so easy to digest.

Quaker Puffed Wheat **Quaker Puffed Rice**



PHILADELPHIA NOTES

By THE HOSPITAL BUYER
Correspondent

Bequests of $5,000 each to the Hahnemann Hospital, Philadelphia, and the Children's Seashore House, Atlantic City, in the will of Frank W. Hall, Philadelphi, who left an estate valued at $113,800.

Two hundred and fifty inmates of the Philadelphia General Hospital were entertained, recently, at an afternoon "hospital party," given in the Red Cross building of the institution by the Women's Service Club of the Holy Apostles Protestant Episcopal Church. There were musical numbers and humorous readings, after which favors consisting of balloons and paper hats were passed around. Many of the inmates entered into the entertainment. Refreshments followed the amusment features. A party on this general order will be given every month, under the auspices of the hospital chapel of All Souls' Guild, under the direction of the Protestant Episcopal City Mission. Many of the hospital nurses assisted at this first party.

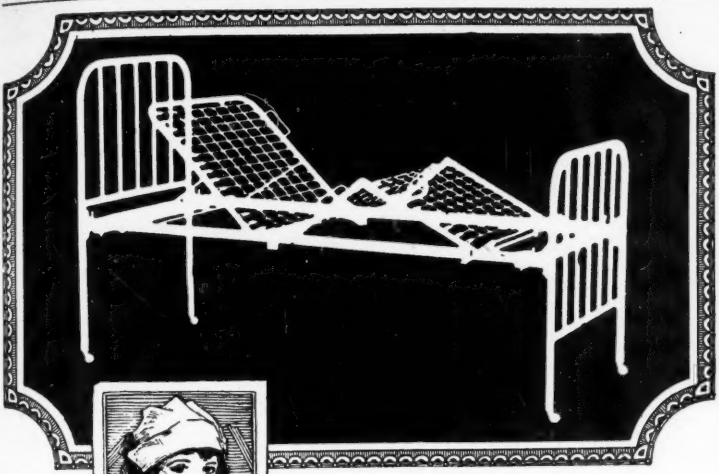
Abnormal medical bills could be cut in half, if families would hire a physician, after the Chinese fashion, by the year, to prevent them from illness, rather than have them charge by the visit, asserted Dr. William B. Peck, maanging director of the Tri-State District Medical Association, which includes 300 physicians of mid-western states, who were in Philadelphia, the latter part of April, on a tour of medical centers of the east. The members spent two days visiting hospitals and attending clinics. Dr. George E. Pfahler, professor of radiology at the University of Pennsylvania, held a special clinic at Polyclinic Hospital, for the visiting physicians, discussing the X-ray and radium therapy. Dr. Peck suggested that groups of families could hire a physician by the year to keep them well and in this way physicians would be better able to estimate their income and the families to be more sure of lower doctors' bills.

Eight city hospitals benefited substantially from the twelfth annual exhibition of the Philadelphia Indoor Horse Show Association, in Cavalry Armory, whose program contained many interesting features.

A method of finding the proper remedies for illness by a system of cards with holes punched in them was demonstrated before the Homepathic Medical Society at Hahnemann Medical College recently. The cards, indexed in the usual fashion, by symptoms, each has a hole punched in a certain position opposite a remedy. Where there are a number of symptoms, the physician takes the cards for all, holds them together, and the coincidence of the holes in the cards indicates the proper remedy.

For the benefit of Misericordia Hospital, a two-day garden fete will be given on the Bellevue-Stratford Hotel roof, June 1 and 2. Dancing and a fashion show will be prominent features of the event. There will be sales of many commodities at ten booths, for which there are the same number of committees. The nurses' booth will be in charge of Mrs. C. MacFarland. Many donations have been pledged.

A drunkard of long standing had been reformed by an operation which removed a bone that pressed against the brain. Newspapers also report a number of cures effected by removal of a brass rail that was pressing against the foot.—*Kansas City Star.*

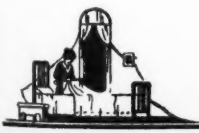


Ask the nurse~

SMITH and DAVIS MANUFACTURING COMPANY

She understands hospital requirements —she knows the "fine points" of hospital beds and furniture—and her decision will be dictated solely by regard for the welfare of her patients. Ask *her* about *Smith & Davis* Hospital Beds and Hospital Metal Furniture. We're willing to abide by *her* verdict, any day.

Send for our new Catalogue, showing our full line of Hospital Equipment



SMITH & DAVIS MFG. CO. *St. Louis. U.S.A.*

BUILDING BY GENERAL CONTRACTS
vs.
BY SEPARATE CONTRACTS

From a theoretical standpoint, the idea of a general contractor is a sound one because responsibility is centered under one roof, but it is only sound provided the general contractor is one of the large construction companies who maintain their own installation departments and consequently have a reputation to protect.

It is unfortunately true, however, that a large percentage of general contractors are firms who probably are equipped only to execute one branch of the building work themselves, and have to let out the other branches to sub-contractors.

When this class of general contractor bids on a building, he figures on his own branch, and calls on several other firms in each branch of the building trades for bids on all the other branches. He then selects the lowest bids in all branches, possibly adds a percentage to them, and the total makes, with the branch he bids on himself, the bid submitted to the architect.

The owner and architect are, therefore, in the position, if they accept the bid, that they have had no voice in selecting any of the contractors who are to do the work except the general contractor who probably will only execute one branch of the work himself and does not have a technically trained staff to supervise the work of the sub-contractors.

Cheap Prices

Once the average general contractor gets the job, he very often proceeds to shop and see whether by inviting more bids than he had at first, he cannot get cheaper prices on some branches. Cheaper prices than those bid by reputable firms usually mean scamped work to enable the cheap bidder to make any profit. Unfortunately, in too many cases the cheap bidder manages to get away with poor work or inferior material, and it is only many months after the building has been accepted and settled for with the general contractor, that the defects begin to show up. The owners then bear the brunt of whatever loss or inconvenience ensues, and have no recourse against anybody.

What takes place when the architect decides to let the contract for the whole building to one contractor? Depending upon the business conditions throughout the country, there will be either a few or many bidders for the job regardless of the personal selection of the architect.

Although the architect may only invite firms of good standing to bid, it generally happens that others also submit bids whose standing is not so good. Naturally, all bids are gone over, and the cheapest bidder is in too many cases, awarded the job, it being supposed that supervision will prevent scamped work, which in many cases the supervision provided fails to do.

Separate Bids

On the other hand, when separate bids are taken for all the different branches of a building, selection of the contractors is easy, bids obviously so low as to preclude good work can be eliminated, and, last of all, there can be no passing the buck. Each contractor is responsible for his own work, and the supervision of the architect is directly over him and complaints come direct, and not through a general contractor.

The element of personal contact with the sub-contractor is absent when a general contractor is in force. The sub-contractor does not consider himself bound to the owner when he gets his con-

(Continued on page 84)

25% of Bran

Hidden in a Morning Dainty

Pettijohn's is a rolled soft wheat—the most flavory wheat that grows. Everybody likes it. In countless homes it has become the favorite morning dish.

Each flake hides bran flakes. Pettijohn's is 25% bran. Yet the flavory flakes conceal it.

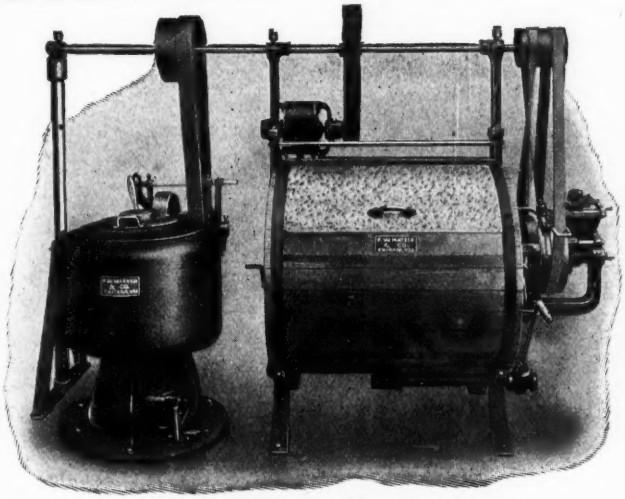
This Pettijohn's combines whole wheat and bran in a form that's most inviting. For many years physicians have prescribed it.

PACKAGE FREE—to physicians on request.

Pettijohn's

Rolled Wheat—25% Bran

THE QUAKER OATS COMPANY, CHICAGO



A typical Hospital installation of "MATEER" Laundry Machinery

Write for Catalog

F. W. MATEER & CO.

Established 1893

226-232 WEST ONTARIO ST. CHICAGO, ILL.

FIFTH AVENUE HOSPITAL NEW YORK CITY

A consolidation of the old Hahnemann Hospital and the Laura Franklin Free Hospital for children, the Fifth Avenue Hospital, opened last July, has made a new departure in its scheme of interior color and also in its endeavor to provide private rooms at prices within the reach of people of moderate means. The nine-story building is constructed in the form of an X, with a central dome containing three more stories and with a basement and sub-basement.

Occupying a whole block front on Fifth Avenue between 105th and 106th Streets, opposite the Central Park Horticultural Gardens, its rooms have a fine outlook over the park and owing to the design of the building, all the rooms are outside rooms with ample light and air. With the exception of some on the children's floor, all the rooms are private rooms. Every room has a connecting lavatory, others are provided with bathrooms. Waiting rooms for visitors are provided on every floor.

A strong effort has been made to get away from everything suggestive of the atmosphere of a hospital as far as medical standards permit. Tasteful wooden furniture, comfortable chairs, harmonious rugs, surrounded by walls of french gray. Even the beds are enameled to harmonize with the walls and furniture.

Another feature of this hospital is the attempt to lower prices for services rendered to patients. Maternity cases receive two weeks' board, room, care, and treatment, including delivery and treatment of the baby, for $75.00.

The sub-basement contains the morgue, autopsy rooms, disinfecting and incinerating plants, besides the fan room and boiler plant.

The central service department is situated in the main basement. Orders for supplies are sent from the various floors by tel-autograph and automatic telephones. This department is adjacent to the linen room, surgical supply department, pharmacy, store rooms, general kitchen, and diet kitchen.

All foods are prepared in the kitchen and diet kitchen and delivered to the various floors on trays, which are carried up in electrically heated dumb-waiters. After meals all trays are returned to the basement.

Patients not having private nurses, press a button by the bedside which lights a green light over the door, and, also one in the floor superintendent's office. These lights stay lighted until the nurse answers the call and extinguishes them by pushing a button in the room.

Patients too sick to be left alone are required to have a special nurse, as are all delirious patients and those recovering from anesthetics.

The operating rooms are all dark gray tiling for the lower walls, the upper walls and ceilings being a light gray, which gives almost the same light effect as white. All the furniture is also light gray.

The patients have the use of the roof for enjoying the open air, and a solarium is also provided, as are also quarters for the animals used in experimental research.

MARKET REVIEW

(Continued from page 58)

ing in the group. Reports from the country indicate that collections are not heavy. The gatherers are being offered high prices, yet this does not encourage collections.

American Made Medicinals

Acriflavine
Neutral
Acriflavine
Cinchophen
Neocinchophen
Dichloramine-T

PURITY-ACCURACY
Abbott
GUARANTEED

Butyn
Barbital
Barbital
Sodium
Procaine
Chlorazene

QUALITY PRODUCTS

Accepted by the Council on Pharmacy and Chemistry of
The American Medical Association

ON PRESCRIPTION AT ALL PHARMACIES

The Abbott Laboratories

Executive Offices
Chicago

New York - San Francisco - Seattle - Los Angeles - Toronto - Bombay

TWENTY-EIGHT YEARS AGO AND NOW

The remarkable advance in hospital science and efficiency is apparent wherever we go, but, to appreciate its full significance, comparisons are of interest.

A story of the St. Agnes Hospital, Raleigh, N. C., has come to us through the kindness of Dr. Mary V. Glenton, Superintendent. This institution for Colored patients was founded in 1895. The conditions twenty-eight years ago were these:

No water in the house, except one faucet in the kitchen.

No hot water, but what could be heated on the ward stoves.

Whole house heated by wood.

Two small steamers for sterilizers (the results untrustworthy), formed the operating room equipment—a probationer stationed outside of the operating room door, to hand in hot water when called for, and to empty buckets of used water.

No screens in windows or doors, and flying things innumerable, with wings small and great.

Laundry equipment—three ordinary wash tubs, flat iron heater, and a big iron kettle in the yard for boiling clothes.

Ice only in extreme emergency, and it had to come from town. Automobiles were not invented, and trolleys were still an oddity.

Cool water was brought by hand from the spring to bathe Typhoid patients, and the nurses carried it. And that was for old-fashioned Typhoid treatment before the days of vaccine. There was no sewerage.

The Office was Reception Room, Doctor's Living Room, Dining Room, Surgeons' Dressing Room on operating days, and sometimes the Morgue.

No plumbing anywhere — only earth closets.

No Diet kitchen—the trays kept on a shelf in the kitchen.

No gas for cooking nor for lighting; simply oil lamps.

Not always enough food for patients; nor the proper kind for nurses and staff.

Twenty-five years following its opening, this institution treated 962 cases in twelve months. A nursing school was established; funds were raised for equipment; and the hospital is doing much good work.

WILMINGTON HOSPITAL NOTES

It begins to appear that the year 1923 will be an eventful one for Wilmington's hospitals. This city has always been deficient in hospital beds, if one accepts the rule that 5 beds per 1,000 of population is the proper standard. At present the capacity of the general and special hospitals (exclusive of psychopathic and tuberculosis hospitals) is as follows:

Hospital	*Beds*
Delaware	188
Physicians' and Surgeons	90
Homeopathic	122
Jones	30
Walter	20

Since the population is approximately 110,000, this total of 400 beds is 150 less than the standard of the community should be. This shortage, in part, will be made up by a new institution to be conducted by the Sisters of St. Francis. The new St. Francis Hospital will be built on the block bounded by Seventh, Clayton, Eighth and du Pont Streets, and will have an initial capacity of 60 beds, to be increased ultimately by the addition of four pavilions to a total capacity of 225 beds. The new buildings and grounds will cost approximately

$250,000, of which about half will be paid by the Sisters, and the remainder will be raised by the people of Wilmington. An intensive campaign is now being waged to secure these funds, the success of which is a foregone conclusion.

The main building will be 175 feet in length, three floors in height, with a fourth floor over the central portion. In addition to the 60 patients, it will accommodate 12 Sisters, 14 nurses, 2 internes and all necessary help. The equipment will be most complete and modern. It is understood that the new institution will be "open," at least so far as private privileges are concerned, though a staff is being considered for the public ward and dispensary work. When one considers the phenomenal success the Sisters of St. Francis have had in conducting hospitals all over the country, especially St. Mary's Hospital, Rochester, Minn. (the Mayo Clinic Hospital), there can be no doubt of the success of this new enterprise.

In addition to the above, the Physicians' and Surgeon's Hospital is planning an ambitious program of expansion, to occupy several years. The present quarters are inadequate in location, size, design and equipment, and it is proposed to remedy this by building the new units as they may be needed on the South Broome Street site, where the hospital already owns two whole city blocks, and where the contagious disease unit is now located. Plans are now being drawn by a leading firm of architects of the complete plant, and details of the first unit are nearing completion. The strictly first-class design of these units yields a plant second to none for its size, and while slightly more expensive than was at first anticipated, the

(Continued on page 82)

a food-drink!

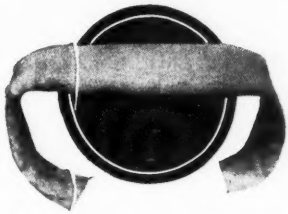
PURITAN COCOA

A delicious blend of the finest grade; free from alkali; rich, yet easily digested; possessing a high nutrition value.

Sample tin on request.

Ideal Cocoa & Chocolate Co
39-43 Park Place, New York
Mills—Lititz, Pa.

Swiss Hospital Pads



SEND FOR SAMPLES

Made in Medium and Obstetrical sizes. Unusually generous ends. Pure, all-absorbent cotton—with soft, velvety tubular yarn cover.

PURITAN MILLS
SWISS TEXTILE COMPANY
1133 Broadway, New York, N.Y.
Mills: Assonet, Mass.

COMPOSITION FLOORING

(Continued from page 50)

Slab Construction

Composition floors may be laid directly on the slab, eliminating fill. Where fill occurs same shall conform to concrete specifications.

How to Clean and Care for Composition Flooring

With reasonable care and treatment, composition floors retain their attraction indefinitely. They are seamless, jointless floors, and therefore are the most sanitary and easy to keep clean of any types of floors.

The close dense surface of composition floors does not catch dirt readily, and only requires a daily sweeping followed by the use of an oil mop. Generally this is all that is necessary.

When washing is required, a mild soap should be used with luke-warm water (never use alkali, gold dust or caustic soaps) then the floors should be rinsed with clean water and dried immediately and thoroughly. Wash a small section about six feet square at a time, rinse and dry. Don't use a mop, and never put large quantities of dirty water over the floor. Change the water frequently and do not attempt to clean the entire floor space with one bucket of water. The frequent use of oil on this flooring is advisable. A gallon of oil will cover 500 square feet, two coats. Any good wax or oil preparations are good, and the following "home-made" mixture is also suitable:

¼ pound Beeswax.
1 pound Parrafine Wax.
¼ pint raw Linseed Oil.
1¼ pint Turpentine.

Melt the Beeswax and Parrafine Wax, add the oil and turpentine, stir well and apply with a soft rag and polish with a weighted brush.

Never oil or wax a floor unless it has first been washed, and always allow 30 minutes for drying before applying the oil or wax. The aim in applying wax or oil is to get it into the body of the floor, therefore rub the material well and apply when the room is warm.

LIQUID GLUE

F. X. W. asks: "How may I make a liquid glue that can be used for sticking wood? Also, how can I make a good general glue?"

Here is a formula that is said to produce a very strong liquid glue suitable for sticking wood, crockery, and glass:

Sheet glue ..... 4½ ounces.
Water .....12 ounces.
Hydrochloric acid. ¾ ounce.
Zinc sulphate .... 1⅛ ounces.

Add the glue to six ounces of the water and let the mixture stand for several hours. Then add the balance of water in which the hydrochloric acid and sulphate of zinc have previously been dissolved and heat the mixture at 185° F. for ten or twelve hours.

An all-around liquid glue that is said to possess exceptional keeping qualities has this composition:

Sheet glue .....8 ounces.
Glacial acetic acid...1 ounce.
Solution of formaldehyde .....½ ounce.
Water, enough to make .....16 ounces.

Soak the glue until soft in enough water to cover it, then heat on a water bath until dissolved. Add the acetic acid, the formaldehyde, and sufficient water to make up the measure of 16 ounces. Strain. — *Bulletin of Pharmacy.*

LET'S ALL GO
Milwaukee, October 22

Positively Sterile Without Added Preservatives

Specify "Abbotts"

Abbott's Pituitary Solution

Made From Fresh Glands

Physiologically Standardized to a Definite, always Uniform Potency FOR OBSTETRICAL AND SURGICAL USES.

Try this valuable stimulant of uterine contractions in labor. With many it has superseded other remedies in shock and cardiac failure. Supplied in boxes of 6 cc. ampules.

Send for Literature on this and other Council-Passed Specialties such as Chlorazene, Barbital, Cinchophen, Acriflavine, Parresine, Digipoten, Benzyl Benzoate, etc.

Send for Price List

The Abbott Laboratories, Chicago

New York San Francisco Seattle Toronto

VALUE OF PUBLICITY IN RAISING HOSPITAL FUNDS

(Continued from page 38)

an accounting of hospital stewardship; second, a distribution of health news. Through publicity hospitals have found it possible to increase the value of their outpatient departments and to carry health news to tens of thousands where formerly they reached only hundreds. Publicity in campaigns for funds has aroused such widespread interest and has been so successful in securing the support of the public that hospital authorities are beginning to adopt the policy of all-year-round publicity.

"There can be no doubt but that publicity, rightly used, makes possible better and greater hospitals," said one hospital superintendent. He has summed up the situation.

WILMINGTON HOSPITAL NOTES

(Continued from page 79)

increased expense is more than justified by the results, for a standard has been set locally that will stand for many years.

The first unit, which will temporarily house the whole hospital of 60 beds, will ultimately have a capacity of 90 beds. Other units will give the hospital a final capacity of 375 beds, the plans calling for a group of eight buildings. The style of architecture will be Georgian.

IN THE GOLDEN AGE

Doctor: "You say 160 is the most you ever weighed. What is the least?"

Patient: "Six and one-half pounds."

BAKING POWDER

The essential constituents of baking powder are a carbonate of some kind and an acid reagent capable of decomposing this carbonate and setting carbon dioxide free. The common carbonate of a baking powder is bicarbonate of soda. The classification of baking powders rests upon the acid elements which they contain. They may be classified as follows: (1) Cream of tartar baking powder, in which the acid constituent is cream of tartar, known chemically as acid potassium tartrate. Other forms of tartaric acid may be used in baking powders of this class, but they are not common. (2) Phospate powders, in which the acid constituent is phosphoric acid, usually in the form of the acid phosphate of lime.

A cream of tartar baking powder can be made as follows:

Potassium bitartrate.....8 ounces.
Sodium bicarbonate.....4 ounces.
Corn starch.....4 ounces.

The addition of the starch answers the double purpose of a "filler" to increase the weight, and a preservative, the chemicals not keeping well when mixed alone. The stability of the powder is increased by drying each ingredient separately by exposure to a gentle heat, mixing at once, and immediately placing in bottles or cans, excluding access of air, and consequently moisture.

Phosphate powders are less expensive to manufacture. A typical formula:

Calcium acid phosphate..75 parts.
Sodium bicarbonate.....25 parts.
Corn starch.....25 parts.

Both the acid and the alkali should be dried separately. The acid should then be mixed with half of the starch, and the alkali with the remainder, finally mixing together thoroughly by repeated sievings.—*Bulletin of Pharmacy.*

MILKING BY MACHINERY

Human life and human effort sometimes seem to be the cheapest commodities on the market, yet careful study of any productive method usually shows that machine labor is cheaper than human labor. In the old days, back on the farm, there was one job that was always done by hand and that it was firmly believed never could be done any other way. That was milking the cow. Many farmers still contend that the human machine is the cheapest and the most effective method of milking. This has been a subject of much discussion in farm journals and at farmers' institutes The University of Illinois recently determined to find out the truth, so two of their experts compiled cost records from 66 Illinois farms from 1914 to 1920. The *Prairie Farmer* says in a recent issue, the report shows that it takes more time and costs more to milk cows by hand than by machinery. Figuring on the basis of one cow per year, it was found that it required 133 hours of hand labor and 81 hours of machine labor—a saving of 52 hours per cow per year. Naturally, the larger the number of cows, the greater the saving. Regarding expense, figuring labor on the basis of 17½ cents per hour, it cost $18.64 per year to milk a cow by machinery and $23.44 to milk a cow by hand. Regarding cleanliness, the investigation showed that this depended on the care used in keeping buckets, strainers and machinery clean, rather than on the method. The only way in which it could be figured that hand milking was cheaper than machine labor was by estimating labor at 8½ cents per hour and farm labor, today, can not be secured at that figure. The net saving by the use of machinery is estimated at 40%.

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Opportunities Column

EXPERIENCED GRADUATE PHARMACIST AND LABORATORY TECHNICIAN desires change to hospital pharmacy laboratory. Employed in drug store at present. Age 26. Pharmacist, care The Hospital Buyer.

WANTED—MANAGING SUPERINTENDENT of hospital or insane institution with construction experience desires change. Address No. 100, care The Hospital Buyer.

THE ADVANTAGES OF PREPARED PAINT

(Continued from page 52)

space and all the trouble of shop mixing and also cancels the loss from deterioration of paint materials, such as lead for instance, which will dry in the keg, much loss resulting therefrom. Then there are oils, dryers, turpentine, etc., which are bound to suffer more or less from evaporation and leakage.

Cheapest and Best in the End

Never look at the original cost per can or barrel, but figure in the reductions that will be afforded when all costs are included. Buy satisfaction, buy protection, beauty, preservation and added value. Prepared paints will always hold true to color, look best and wear well longest.

Do not forget that the man at the factory end is an expert paint maker. In the average case years have been devoted to the improvement of manufacturing methods. Every scientific and practical means have been installed, and every batch of material is thoroughly tested before it goes in the can and is placed on the market.

(In our next article we will take up the proper painting of the inside of the hospital.)

THE HISTORY OF THE NEW YORK HOSPITAL

(Continued from page 25)

resulted in the establishment, in a spacious country site on Morningside Heights, of a separate department of the Society known as Bloomingdale Hospital, open to the whole country, which has ever since cared for the mentally afflicted on a humane and scientific basis, and has gained a world-wide reputation. Only last May, a year ago, the centennial of the institution, which in 1894 had been removed to White Plains in Westchester County of New York, was celebrated.

BUILDING BY GENERAL CONTRACT

(Continued from page 74)

tract and his money from the general contractor.

It would seem, therefore, except in the case of very large buildings which large, responsible construction firms will bid on, that the system of letting separate contracts for each branch is more apt, in nine cases out of ten, to result in a more satisfactory building than when the contract is let to a general contractor who may be employing irresponsible and unreliable sub-contractors to do the work because of their low bids.

GRAPEFRUIT HEARTS NOW BEING CANNED

The canning of grapefruit hearts is gradually assuming the proportions of a national industry and the general offering of this commodity on the market is looked for with the announcement of the opening of several new concerns in Florida within recent months

ONE OAT DISH

Supplies 9.7%

Daily requirements for an average adult are figured as follows:

Protein 75 gms. Phosphorus 1.44 gms. Calcium 0.67 gms. Fat 50 gms. Iron 0.015 gms. Calories 3,000.

One dish of Quaker Oats, with the usual sugar and cream mixture, supplies 9.7% of that daily requirement. And in a remarkably well balanced form.

Quaker Oats holds supreme place for its flavor. It is flaked from just the finest grains—the rich, plump, flavory oats. We get but ten pounds of such flakes from a bushel.

That super-flavor makes the oat dish welcome and delightful.

Quaker Oats

Just the cream of the oats

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THE EQUIPMENT OF A EUROPEAN INSTITUTE FOR PHYSIOTHERAPY

(Continued from page 20)

seased muscles to reconstruction and re-enforcement of the muscular fibers. In Dr. O. Ahlswede's institute, we have often been able to restore a completely weakened heart to full activity in the course of six to eight weeks. The gradual increase in function of the heart is best followed by continued observations of the size of the heart on the x-ray plates. Massage by vibration also gives best results when combined with the treatment just described. Thus we may alternate Bergonier and galvanic treatment with Bergonier and massage. Radiations with the arc lamp may likewise be added.

In other rooms of this private institution, there are quartz lamps, lamps for blue and red light radiations, electric douches, electrolytical apparatus and many other appliances, installed in a similar manner. It is always considered of importance that combinations, such as described, can be carried out. Switches for making and breaking the circuit must be available in large numbers to provide for rapid changes and to prevent that because one appliance is out of order the rest cease to function. It is better to have many single wires with separate fuses than it is to have one common cable; because, in the latter case, with the burning out of the one fuse, all operations cease. Naturally, the modern institute for physiotherapy is, at the same time, an institute for electrical therapy. The reason why the electrical baths have not been described here is that nothing new need to be said about their construction and function.

THE MIRRORS OF THE HOSPITAL

(Continued from page 15)

The dietitian of an ancient day was chiefly concerned with the marketing for the institution. Nicely attired, she journeyed to the markets and selected all the best looking fruits, vegetables and cuts of meat available. Nowadays she orders over the telephone and with the expert assistance of three comptometers and an adding machine she calculates the total calories involved, the alphabetical vitamins, the mineral salts and the roughage. This task, together with the answering of kicks from the hospital personnel on the food furnished for their consumption is sufficient of a task for any ordinary person.

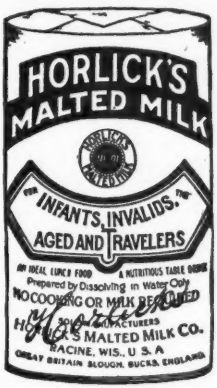
The Nurse

Let us consider in conclusion the sweet posy in the garden of thistles—the graduate nurse. It is customary to pause and pay tribute to Florence Nightingale. Alas! in this skeptical and cynical day one knows not to what Florence the tribute should be rendered, whether to her of the poetical books, the spiritual lady with the lamp, or to her of Lytton Strachey's biography, the efficient woman at whose beck and call ministers of England rushed to respond, who from her death bed influenced the history of her period with an iron hand. No doubt the real Florence was, after all, between the two. No doubt she was indeed a lovely woman, tried and seasoned in the bitter school of experience in many lands, with a mind trained by combat with other minds, and with a purpose which dominated her every action. Only from such a woman could have come the vast army of descendants, the graduate nurses of today, without whom illness would be intolerable, the hospital deso-

late, the invalid at home a pitiful object.

Let us place before the mirror a specimen of the species of nurse and see what it reflects. Mr. Dooley in discussing Christian Science said: "If the docthors only had more chrisyanity and the mental healers more science, it wouldn't make so much difference which the patient chose, provided he had a good nurse." Well, today they are making good nurses. One fears sometimes they are making them too good. There was a time, not so long ago, either, when the physicians they turned out did not get half the education that is given to the modern nurse, and some of that ancient variety promptly settled down to practice with the equipment that they had and haven't learned anything since. The result is obvious. One of them gets on a serious case and the family suggests the possibility of getting in a nurse. Pretty soon a blossoming damsel of some twenty to twenty-five summers comes tripping into the house, fetches forth some history sheets, inserts a thermometer into the patient's mouth, takes the pulse, feels the skin, makes records of the various physiologic functions, and the next morning when his honor, the medico, calls, she asks questions and offers suggestions. A few weeks later the ancient practitioner with the unkempt hirsutage may be observed with his traveling bag en route to the railroad station, while the local weekly announce that Dr. John J. Mossback has gone to New York City, where he will spend three months in study at some of the well-known clinics.

The middle name of the modern nurse is efficiency. She gets results. There are times when the doctors and the patients are likely to call her something else, but invariably as the hemoglobin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passes eighty-five and begins to mount toward ninety, as the red corpuscles pass the four million mark and the blood pressure begins to tickle the cerebral centers, as the endocrine glands begin to release their internal secretions into the circulating fluid, the convalescent male begins to reach for her hand and call her his angel, and the recovering woman begs her husband over the telephone to fetch along a two pound box of candy when he calls that evening. Ah! yes! nursing is a noble profession—and on the whole a very pleasant one.

HOSPITAL NOTES

Land purchased by the State at Grafton, Ohio, will be used for a branch of the Cleveland State Hospital as soon as the $205,000 requested by the State Director of welfare in the budget has been granted. The administration building is expected to cost $150,000.

Women as alternate internes will go on duty for the first time in the history of the Lakeside Hospital, Cleveland, Ohio, when Elizabeth Dial and Ruth O. Robishaw, seniors at Western Reserve Medical College join the hispital staff in July next.

The annual report of the Robinwood Hospital at Toledo, Ohio gives the cost of maintaining a patient at the hospital at $5.24 per day.

WELL PACKED

The shades of night were falling fast,
He stepped on the throttle and hurried past,
A crash in the darkness—the man was dead,
What did they find when they opened his head?
Excelsior! —*J. L. C., Mich.*

LAUNDRY PRACTICE

(Continued from page 61)

employed in the application of the skeleton formula. Bleach is permissible on cotton and linen only, but can be used on colored fabrics in such few cases without affecting the dye that it is well to rule against its use on any colored fabric as a safeguard against sad mistakes.

The next step in the skeleton formula calls for a "sour." A sour is desirable chiefly because it counteracts the javelle water that remains in the clothes, and so hastens the subsequent rinsing process. Of course, where no javelle water has been used, the sour bath is not resorted to for this purpose. If, however, numerous iron stains appear in the garment, it is necessary to introduce a small amount of oxalic acid in the rinse water, to remove them. The fact that the amount of oxalic acid introduced for this purpose is not more than enough to make the water as sour with this acid as pie-plant or rhubarb pie is, should remove any objections to the practice that may be lodged in the patient's mind.

A SEEDLESS APPLE

At Abbotsford, Quebec, Canada, a seedless apple has been grown with only a slight mark in its heart where the core should be. It has yet to be determined that the parent apple tree will produce trees by graft giving similar fruits. If they do, the discovery will be of enormous value commercially.

BANANAS FROM MEXICO

Bananas are now being shipped from Vera Cruz, Mexico, where 5000 acres have been planted. The shorter sea voyage enables the fruit to reach the United States four days after cutting on the plantation.

A Condensed, Descriptive List for Hospitals of Drugs and Dispensary Supplies

List No. Item

1201 Acetanilid (Aromatic) grs. 5. Tablets, uncoated. Bottles of 1,000. Also in bulk lots.

1291 Acriflavine, Powder.* Package of 25 grams.

1311 Acriflavine, Tablets,* grs. 0.46. Bottles of 100.

1347 Acriflavine, Tablets, grs. 0.46. Coated tablets. Bottles of 1,000. Now highly esteemed as an irrigant for gonorrhea. Also used by injection. A good germicide for wound treatments, since it does not inhibit phagocytosis. By mouth, coated tablets serve well as a urinary antiseptic. Our salt, suitable for either purpose, more than meets the official tests for purity.

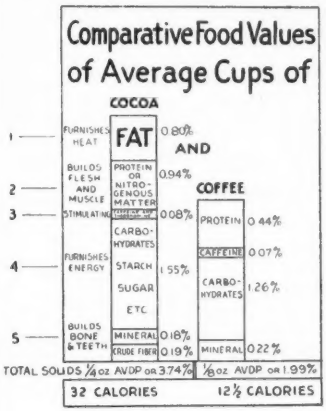
261 Alkaline and Antiseptic (Seiler) Tablets, uncoated. Bottles of 500; and in bulk.

1357 Amidopyrine (introduced as pyramidon). Tablets, grs. 5. In bottles of 100 and in bulk. For headaches, migraines, neuralgias, etc. Anodyne effect more prolonged than that of most coaltar drugs. Less depressant. Highly regarded in Europe.

1330 Aneskreme.* 1-ounce tubes; 1-pound cans.
Ointment containing Anesthesin (1%) with sodium borate, menthol, thymol, camphor, etc. A good application for nasal catarrh, rhinitis, head-colds, hay fever; also for pruritus, urticaria, chilblains and itching piles.

1331 Anespray.* 4-ounce bottles.
An excellent spray solution for use in the throat and nasal passages, applied with an atomizer (for oils) or a nebulizer. Promptly relieves inflammation, local irritation and pain.

1266 Anesthesin, Powder.* In ounce and 4-ounce packages.
A surface analgesic, relieving pain and irritation by benumbing sensory nerve-endings. Unlike cocaine it is of low toxicity and virtually harmless. Applied as a dusting powder to wounds, leg ulcers, etc.; to the throat by insufflation; in eczema, urticaria, piles, etc., as an ointment in petroleum jelly (20 grs. to the oz.) or olive oil (3%); and in suppositories. See also Aneskreme.



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1275	**Anesthesin-Calcidin Troches.*** Bottles of 500 and 1,000; also in bulk. Each troche or lozenge contains: Anesthesin, gr. ¼; Calcidin, gr. 1/3; extract of licorice and flavors. Promptly effective in throat irritations, hacking coughs, and before surgical work on the throat, to prevent gagging.
724	**Antiseptic, No. 1 (Mercuric Chloride)** Tablets, colored green. Bottles of 1,000; and in bulk.
1271	**Argyn, Powder.*** In pound and quarter-pound packages. The best of silver preparations. Contains more than 25% of silver in colloidal form. Readily miscible with water, yielding a fresh and effective solution as wanted, for instillation, injection or application on swabs or tampons. Unirritant in the eye or urethra.
1219	**Aromatic Chlorazene Powder.*** In pound packages; and in bulk. Chlorazene (which see) along with alkaline salts and eucalyptol. Especially for preparing gargle and douching solutions. Pleasant in the mouth. **Arsphenamine, "D. R. L."*** All standard dosages.
548	**Atropine Sulphate,** gr. 1/100, Hypodermic Tablets. Tubes of 25. In dozens or hundreds.
1169	**Barbital, Powder.*** In 1 and 5-pound packages.
1171	**Barbital Tablets,*** grs. 5. Bottles of 1,000. Cans of 5,000 or more. Hypnotic and sedative. Introduced as veronal and once wholly imported. We are now making it in large quantities for the home profession. The genuine drug, equal to any whatever its source. A council-passed item.
1232	**Barbital-Sodium, Powder.** In 1 and 5-pound packages.
1327	**Benzyl Fumarate,** Tablets, grs. 5. Bottles of 500 and 1,000. New benzyl compound. More effective as an antispasmodic (in pain due to spasm) than the benzoate. Almost tasteless. Not likely to cause epigastric distress.
395	**Boracic Acid,** grs. 5, Tablets, uncoated. Bottles of 1,000; and in bulk lots.
729	**Buttermilk Tablets,** uncoated. Tubes of 12. A lactic-acid culture, especially for making buttermilk independently of the churn. Very convenient. The working process is simple.
1328	**Butyn, Powder.*** Package of 25 grams.
1320	**Butyn, 2% Solution.*** In ounce bottles. New local anesthetic with important advantages over cocaine, which it is destined to replace. Less is required. There is less danger from toxicity. It acts more rapidly. Its effects are more prolonged. Solutions may be boiled. Especially useful for eyework, since it does not dilate the pupil, etc. No federal narcotic blank needed for its purchase.
1334	**Butyn Tablets,*** grs. 3. Tubes of 10. One tablet dissolved in 10 Cc. of water gives a 2% solution.
1329	**Butyn and Epinephrin Compound,*** Hypodermic Tablets. Bottle of 100 and 500. Each tablet contains: Butyn, gr. 1/6; epinephrin, gr. 1/1250. One tablet dissolved in 1 Cc. of water gives a 1% solution.
457	**Calcalith,** Tablets, uncoated. Bottles of 1000 and in bulk. Each tablet contains: Calcium carbonate, grs. 10; lithium carbonate, gr. 1; colchicine, gr. 1/500; aromatics, q.s. Best alkalinizing agent in rheumatism, lithemia, bladder irritability, tenesmus, etc.
575	**Calcidin, gr. 1,*** Tablets, uncoated. Bottle of 1000 and in bulk. Also to be had in tablets containing gr. 1/3, grs. 2½, grs. 5; and in powder form. Carries 15% of available iodine, present in a form that is well borne by the stomach and quickly assimilated.
364	**Calomel (With Aromatics),** gr. 1/10, Tablets, uncoated. Bottles of 1000 and in bulk.
528	**Carbenzol Soap.** Cartons of 1 dozen cakes. A cake soap carrying a rectified distillate of shale tar with vegetable oil. Excellent for shampooing, scalp irritations, and when ordinary soaps (as in some skin lesions) are not permissible.
586	**Cascara Compound (Hinkle) No. 1,** Tablets, pink or brown. Bottles of 1000; and in bulk lots.
1105	**Chlorazene, Powder.*** Hospital Package, No. 2, containing enough antiseptic to make 5 gallons of 1% solution. Also in pounds.
1106	**Chlorazene Tablets,** grs. 4.6. One tablet in 1 ounce of water makes a 1% solution. Bottles of 1000; and in bulk lots. Dakin's simplified chlorine antiseptic is many times more powerful against pyogenic infections than carbolic acid. Quicker to act and more thorough than mercury bichloride. Yet practically harmless to persons. Soluble in water. Easy to use. Effective in weak solutions. Best working antiseptic for wound treatment and for general use.
1300	**Chlorazene Soap Powder.*** In pound bottles.

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A good disinfectant is indispensable in the hospital—therefore the problem is, which—

Is the Most Efficient and Economical Disinfectant?

The answer is easy—**IZAL** saves you 50% —figure it out for yourself.

One pint liquid Cresalis Comp. U. S. P.
$0.15
in bulk lots, makes 12.5 gals. disinfectant, equivalent to 4% Sol. of Phenol.
$0.012 per Gal.

One pint IZAL costs
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in bulk lots, makes 37.5 gals. disinfectant sol., equivalent to a 4% solution of Phenol.
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1133 **Chlorazene Surgical Cream.*** In gallons and half-gallons.

1152 **Chlorazene Surgical Powder.*** In 1-ounce sprinkler cans; and in bulk.

1196 **Chlorazene Surgical Gauze.*** 5-yard rolls.

1170 **Chlorcosane.*** In half-gallons and 5-gallon lots.
Solvent for Dichloramine-T. A chlorinated liquefied paraffin wax prepared according to the method of Dakin and Dunham.

1187 **Cinchophen, Powder.*** In pound and quarter-pound packages.

1253 **Cinchophen, Tablets,*** grs. 7½ Bottles of 1000.
We are the largest producers in America (if not in the world) of this drug, which was introduced as atophan. Council-passed; purity guaranteed. A most effective uric acid eliminant. Preferable to the salicylates, including aspirin, for acute rheumatism and other painful conditions. Less irritant to the kidneys. Not so depressant.

552 **Codeine Sulphate,** gr. ¼, Hypodermic Tablets. Tubes of 25. In dozens or hundreds. Order on narcotic blank.

1084 **Compound Cathartic, U. S. P.,** Pills coated, white. Bottles of 1000; and in bulk lots.

1119 **Compound Licorice Powder,** grs. 20, Tablets, uncoated. Bottles of 500; and in bulk lots.

1156 **Dichloramine-T.*** In quarter-pound packages.
Most powerful of the Dakin antiseptics. For treating badly infected wounds. Its oil solvent, from which it is released slowly as from a reservoir, permits the use of high concentrations (5%) without irritation and a prolonged effect.

730 **Digipoten.*** In ¼-ounce packages.
The essential glucosides of digitalis, with milk sugar. Adjusted to a definite strength by the one-hour frog method. One grain equals in therapeutic activity ten minims of fresh tincture. Keeps well in this dry form. The infusion or tincture may readily be extemporized from it, if desired.

736 **Digipoten,*** gr. ½, Tablets, uncoated. Bottles of 1000; and in bulk.

1231 **Dover's Powder,** grs. 5, Tablets, uncoated. Bottles of 1000; and in bulk lots.
Order on narcotic blank.

1262 **Elixir Barbital-Sodium.** In gallon bottles and in bulk.
Each ounce contains 20 grains of the hypnotic. Serves nicely for children and whenever a fluid is preferred. Pleasant to the taste. Made without alcohol.

1268 **Elixir Benzyl Benzoate.*** In gallon and half-gallon bottles.

List No. Item

The most palatable fluid form of this antispasmodic, which was brought forward by Macht for the relief of pain, dyspnea and diarrhea originating from spasm.

1003 **Emetine Hydrochloride,** gr. ⅙, Hypodermic Tablets.
Tubes of 12. In dozens or hundreds.

1178 **Epsaco.** In 5 and 10-pound cans.
Dehydrated epsom salt in quickly soluble powder form, with menthol, thymol, phenol and methyl salicylate. For hot or cold compresses, sponging, etc., when the salt is wanted for external use.

1360 **Epinephrin Chloride Solution.** In ounce bottles.
A reliable sterile and isotonic solution for local and internal use, by mouth or hypodermically.

587 **Galactenzyme,*** in bottles of 50 tablets.
A virile culture of the true Bacillus Bulgaricus recommended by Metchnikoff as an antiputrefactice. Implanted in the bowel, it generates lactic acid.

102 **Glonoin,** gr. 1/250, Granules, coated, white. Bottles of 1000; and in bulk lots.

1234 **Gray Oil, 20%, in ampules.** In dozens or hundreds.

914 **Guimethol.** In 1-ounce tubes and bulk lots.
Anodyne ointment or socalled solid liniment containing: Guaiacol, methyl salicylate, menthol, lanolin. For myalgia, neuralgia, lumbago, sprains, etc.

783 **Hexamethylenamine,** grs. 5, Tablets, uncoated. Bottle of 1000; and in bulk.

1356 **Hypnodyne,** Tablets. Bottles of 100; and in bulk.
At once hypnotic and pain-relieving. Each tablet contains: Barbital, grs. 2; acetphenetidin, grs. 2; caffeine citrate, gr. ¼.

533 **Hyoscine, Morphine and Cactoid Compound, No. 1,*** Hypodermic Tablets. Tubes of 25. In dozens or hundreds.
A pain-relieving hypodermic anesthetic, for use with or without ether or chloroform. Largely used in labor to relieve distress attending delivery (twilight sleep). Useful in colics. Must be ordered on narcotic blank.
1, Tablets, uncoated. Bottle of 1000; and in bulk.

459 **Intestinal Antiseptic,** (Powder). In 1 and 5-pound packages.
A balanced mixture of calcium, sodium and zinc sulphocarbolates. Made in our own laboratories, these salts are all of the highest

815 **Intestinal Antiseptic, (W-A), No.** part from friction. Easy to apply; easy to remove.

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Institution .....

Individual .....

City .....

State .....

List No.	Item
	grade. Signally useful in bowel infections, after a saline purge.
1036	**Iron Citrate Compound, in ampules. In dozens or hundreds.**
1335	**Izal.*** In 1-gallon cans; also 5 and 50-gallon drums. General disinfectant and deodorant. A milk-white emulsion of the higher phenols. From 10 to 45 times more powerful than carbolic acid against pus organisms. Mixes with any water. Clean to handle. Not dangerous to persons or animals. Does not stain. Odor not objectionable. Unequaled for hospital use.
1145	**Lubrin (Lubricant Jelly), in 3-ounce tubes.** A lubricant jelly containing .04% of liquor formaldehyde. Without glycerin, oil or other greasy material. Useful on sound, speculum or examining finger.
724	**Mercuric Chloride,** (see Antiseptic, No. 1).
1013	**Mercury Antidote,** (Carter) Tablets, uncoated. Bottles of 1000; and in bulk. The most efficient known antidote for mercuric chloride poisoning. Every hospital dispensary should have it on hand for emergencies. Each tablet contains: Sodium phosphite, grs. 6; sodium acetate, grs. 4.
1102	**Mercury Salicylate in Oil, with Procaine, in ampules. Dozens or hundreds.**
283	**Monobromated Camphor, gr. 1,** Tablets, uncoated. Bottles of 1000; and in bulk.
343	**Morphine Sulphate, gr. ¼,** Hypodermic Tablets. Tubes of 25. In dozens or hundreds. Order on narcotic blank.
	Neoarsphenamine, "D. R. L."* All standard dosages.
1338	**Neocinchophen,*** 5 grs. Tablets. Bottles of 500 and 1000.
1339	**Neocinchophen,*** Powder. In pound packages. Not likely to irritate the stomach. May usually be given without alkalies. Uses same as Cinchophen (which see).
1168	**Neutral Sodium Soap. In gallons and half-gallons.** A liquid soap originated by Carrel and his associates of the Rockefeller Institute. Made only from vegetable oil. Positively free from alkali. Excellent for cleansing open wounds, operating sites, as a hand soap and otherwise.
1136	**Parresine.*** Cartons of 2 half-pound cakes and in bulk lots. A wax-film application for burns, leg ulcers, chilblains, etc. Compound of paraffin and certain waxes, with 2% eucalyptol. In cakes. Cleanest for everyday emergency use and quickest to relieve pain. Protects the injured
1188	**Parresined Lace-Mesh*** (Surgical Dressing). 10 and 50-yard rolls. An expedient for preventing gauze from sticking to wound or incision. Makes dressing easy. Saves time for doctors and nurses. Appreciated by the patient. Facilitates healing. For burns, carbuncles, bedsores, ulcers and wounds generally.
1044	**Petrochondrin.*** In 5 and 10-gallon lots. A flavored mineral oil emulsion. Affords the oil without the oily taste, which many persons object to. For chronic constipation, as a change from cathartics. Also a good vehicle for many drugs.
704	**Physiologic Saline Solution,** Tablets. Bottles of 500; and in bulk.
1107	**Pituitary Solution,* 20%** (full-strength) in Ampules. In dozens or hundreds. Reliable; made from fresh ox glands; standardized by tests upon the isolated uterus of virgin guinea-pigs. Sterile, but without preservatives.
311	**Potassium Bromide,** grs. 5, Tablets, uncoated. Bottles of 1000; and in bulk.
1244	**Potassium Permanganate,** grs. 5, Tablets, uncoated. Bottles of 1000; and in bulk.
1173	**Procaine, Powder.*** In quarter-pound packages.
1199	**Procaine,* gr. 1/3,** with Epinephrin, Hypodermic Tablets. Tubes of 20. In dozens or hundreds. Local anesthetic considerably less toxic than cocaine, while equally efficient for injection work. Preferred by careful operators. Introduced as novocaine. No narcotic blank required when ordering.
1192	**Proflavine, Powder.*** Package of 25 grams. Chemically allied to Acriflavine. Said to serve the same purposes equally well. Not quite so quick to dissolve but cheaper, and in ointments or pastes generally preferred.
915	**Rubefacient Ointment,** in 1-ounce tubes; also 1 and 5-pound cans. A good counterirritant application. Effective without blistering if properly used. Contains: oil of turpentine, cloves, mustard, guaiacol; camphor, menthol, oleoresin capsicum.
399	**Saline Laxative.*** In 5 and 10-pound cans. Epsom salt without its villainous taste and irritating impurities. In palatable, effervescent form. Seldom gripes. As an initial purge, prior to operations, to follow calomel, etc., should be used in place of the plain salt.
704	**Saline Solution Tablets.** (See Physiologic Saline Solution).

List No.	Item
1045	Sodium Cacodylate, grs. 3, in Ampules. In dozens or hundreds.
322	Sodium Bromide, grs. 5, Tablets, uncoated. Bottles of 1000; and in bulk.
584	Sodoxylin,* (Sodium and Xanthoxyloid Compound). In 5 and 10-pound lots. Each 60 grains contains: sodium sulphocarbolate, grs. 2½; sodium sulphate, grs. 5; sodium bicarbonate, grs. 20; colchicine, gr. 1/500; juglandoid, gr. 1/6; xanthoxyloid, gr. 1/6; aromatics. Antacid. Hepatic stimulant. Intestinal antiseptic. Useful against acidosis however manifested. Almost specific in gastric acidity.
1304	Sterilac.* In 5-pound lots. Sterilizer and deodorant, virtually nonpoisonous, leaving no offensive taste nor odor in its trail. Efficient and safe for use in kitchens, pantries and wherever food is stored or handled. A powder containing the water-soluble chloramines. Economical. The user supplies the water.
659	Strychnine Sulphate, gr. 1/30, Hypodermic Tablets. Tubes of 25. In dozens or hundreds.
408	Taenicide, in 2-ounce bottles; also 1-dram capsules, one dozen in box. Surest tape-worm expellent ever contrived. Usually brings the parasite at first trial, head and all. In use for years.
	Bacterins* (Bacterial Vaccines). All those in common use; produced under the best possible laboratory conditions. In sealed glass ampules, 6 in a box, and 20-Cc. bulk containers. Uniform prices for all.

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